```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - nucleic search, using sw model
                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
    795.8 54.7
699.6 48.1
687.4 47.3
679.2 46.7
                                                                        Score
                                                                     Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22781392 seqs, 12152238056 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDENTITY_NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             November 25, 2003, 04:55:18; Search time 3301 Seconds (without alignments) 10705.455 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                          gb est1: *
gb est2: *
gb htc: * *
gb est3: *
gb est4: *
                                                                                                                                                                                            em_estfun: *
em_gss_inv: *
em_gss_inv: *
em_gss_inv: *
em_gss_vri: *
em_gss_vri: *
em_gss_mus: *
em_gss_mus: *
em_gss_pro: *
em_gss_pro: *
em_gss_pro: *
em_gss_vri: *
gb_gssl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em esthum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_estov:*
    1140 12
734 14
714 12
758 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       estmu:*
                                                                        ij
    BM809901
CA313179
BM019631
BG678912
                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45562784
BM809901 AGENCOURT
CA313179 UI-CF-FNO
BM019631 603647895
BG678912 602624621
                                                                  Description
```

Ü	1	<u> </u>	, i) H	4	2 4	بر 0 0	ا بر د ولا	ω υ 3 ο	7 0	4.1	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	8	17	16	15	14	13) <u>)</u>	10	9	œ	٦,	o,	. ເ ກ	ı
5. 5T		,,,	3 6	> .	3 0	٠	٠ ن	ຮູ	438.8	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	446	447.4	448.4	451.4	470.6	474	479.6	481.2	483.4	483.8	492.4	499	506	506.6	507.8	508.4	511.4	542.4	566.6	580	591.8	600.4	601	619.2	620.8	650.4	652.8	652.8	669.6	672.6	
8.	, ,	, ,	, ,	, ,	٠.	٠.	٠:	٠:) () (.0		.0		'n	∾	ω	ω	ω	ω	ω	4	4	4	4.	ū	w	7	Φ	9	0	٠,	٠,	S)	Ŋ		4.	4	46.1	σ	
440	# 20	0 0	1400	407	000) () () (0 0	A (7 5 C	470	457	449	454	951	826	897	978	1338	739	510	505	499	507	579	577	532	525	558	592	727	1116	614	900	716	625	989	793	686	717	794	
9	5		7.	; ;	٠ ۲	, «	ייי	0 F	- L	9	12	9	9	13	12	13	10	11	12	12	12	10	13	10	12	ø	12	14	9	9	1:	1 L	,	۱۵	1,	10	<u>بر</u> در	12	10	10	
AI554385	3/6	2333	BM785939	B1063672	BIALOSIS	AA /89202	33766363	22000000000000000000000000000000000000	B1697046	AA290581	BM717931	AA459626	AA477256	BQ920035	BI411732	BU517778	BE737427	AK009000	BI085777	BM839092	BM759571	BF837996	BX283724	BF034253	BM837882	AA465016	BM783960	CB050946	AW601784	AI859383	BE736690	CB216785	24000045	11850367	1000 E	G67944	I08514	M98328	BE898352	6932	
AI554385 tq16g10.x	BF837644 QV3-HT101	AA102333 zl91b02.s	BM785939 K-EST0064	BI063672 IL3-UT011	BI410819 602963723	AA789202 aj27b02:s	AA290589 zt19c01.s	BM8305// K-ESTU104	BI697046 603348915	AA290581 zt19b02.s	BM717931 UI-E-EJO-	AA459626 2x89q01.r	AA477256 zu39a02.s	BO920035 AGENCOURT	BI411732 602965270	BUS17778 AGENCOURT	88737427 601306216	AKO09000 Miss misscii	BI085777 602870694	BM839092 K-EST0115	BM759571 K-EST0039	BF837996 OV3-HT101	BX283724 BX283724	BF034253 601456048	BM837882 K-EST0114	\$\$465016 7X80d02 T	BM783960 K-8870060	CB050946 NISC G121	PERCURSE WILLIAM A	2 CC40 Cm. C8C0202 C	BE736600 601305777	COST CION TO BOLD SCOO	MICOSTO / WILLUID X	O T - E - E	300	G679444 602621	1085143 602870	M983288 UI-CF	898352 6016	G469321 602533	٠

O

O

O

Q

ALIGNMENTS

RESULT 1

იი

၀ ၀

Ω

Ω

	COMMENT	JOURNAL	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION		DEFINITION	LOCUS	EM809901
Email: cgapbs-r@mail.nih.gov Tissue Procurement: ATCC cDNA Library Preparation: Rubin Laboratory cDNA Library Preparation: Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MCC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LiCM1950 row: j column: 04 High quality sequence start: 17	Contact: Robert Strausberg, Ph.D.	National Institutes of Health, Mammalian Gene Collection (MGC)	NIH-MGC http://mgc.nci.nih.gov/.	1 (bases 1 to 1140)	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Homo sapiens	Homo sapiens (human)	EST.	BM809901.1 GI:19126724	BM809901 -	5', mRNA sequence.	mo sapiens cDNA clone	BM809901 1140 bp mRNA linear EST 05-MAR-2002	

```
Ş
                                                                                                                밁
                                                                                                                                                                                                                       В
        문
                                                                                                                                                           S
                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       рЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 877; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
     689
                                                                                                                629
                                                                                                                                                                 598
                                                                                                                                                                                                                       569
                                                                                                                                                                                                                                                                              538
                                                                                                                                                                                                                                                                                                                                                                                        478
                                                                                                                                                                                                                                                                                                                                  509
                                                                                                                                                                                                                                                                                                                                                                                                                                            449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        دسو
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                High
                                  GTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGGAGACCAGTGCCAGGTTGCT
                                                                                                                                               GGCTGGGGCACCACGGCCGCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGC
                                                                                                                                                                                                                                                                                                                                                           ACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGC
ATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTC-CCAACAAC
                                                                                                       GGCTGGGGCACCACGGCCGGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGC
                                                                                                                                                                                                                                                                     GTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACCAAGCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTGTCCTGGTGGACCAGAGTTGGGTGCTGACTGCCGCACTGCGGAAACAAGCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGCGCGCTCGCAGCCCTGGCAGGTCTCGCTCTCAACGGCCTCTCGTTCCACTGCGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGCCCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAG 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCGACTCCCAGCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCGACTCC---CAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCGGCCGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGATGAGCACGATCTCATGTTGCTAMAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCATCCTGCCAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       dececcede de la reconstrucción de la construcción d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="astrocytoma grade IV, cell line"
/lab host="PH10B (phage-resistant)"
/clone lib="NH10B (phage-resistant)"
/clone lib="NH1MGC 98"
/note="Organ: brain; Vector: pOTB7; Site 1: XhoI; Site 2:
ECORI, CDNA made by oligo-dT priming. Directionally
cloned into ECORI/XhoI sites using the following 5;
adaptor: GGCACGAG(G). Library constructed by Ling Hong
in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."

16 a 399 c 338 g 186 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rty sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="IMAGE:5454819"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54.7%;
93.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 795.8; DB 12
Pred. No. 3.1e-150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              662.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Site_1: XhoI; Site_2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7;
                                                   717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     117
                                                                                                          688
                                                                                                                                                           657
                                                                                                                                                                                                                 62B
                                                                                                                                                                                                                                                                     597
                                                                                                                                                                                                                                                                                                                         568
                                                                                                                                                                                                                                                                                                                                                                                                                                   508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237
                                                                                                                                                                                                                                                                                                                                                                             537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
CA313179/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맖
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: paul-mccray@uiowa.edu
Tissue Procurement: Dr. M. J. Welsh, University of Iowa
cDNA Library preparation: Dr. M. Bento Soares, University of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com) or from Open Biosystems
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (www.openbiosystems.com).
The following repetitive elements were found in this cDNA
sequence: 99-236, MIR#SINE/MIR (matched compliment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 University of Iowa Med Labs,
2024 University of Iowa Med Labs,
Tel: 319 356 4866
Fax: 319 356 7171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome Res. 6 (9),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 734)

Bonaldo,M.F., Lennon,G. and Soares,M.B.

Normalization and subtraction; two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CA313179 734 bp mRNA linear UI-CF-FNO-aex-h-04-0-UI.S1 UI-CF-FNO Homo sapiens UI-CF-FNO-aex-h-04-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           McCray Lab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CA313179.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCAGCATCCAGCTGTCTACA-CCCAGATCTGCAAATACATGTCC--TGGATCAATAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGAACGCCCATGGTCTCCCAAGGCCACGCCTCGGACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAAGCATCCATTTGGCTCCACCCCAAATCTGCAAATACCTGTCCCGGGGACAACTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGTCTGTGACGAGACCCTCCCAAGGCATCCTCTCGTGGGGGTGTTTACCCCCTGTGGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                        primer: M13 FORWARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens (human)
                                                     /clone="UI-CF-FN0-aex-h-04-0-UI"
/tissue_type="human Lung Epithelial cells"
/lab_host="PHDB (Life Technologies) (Tl phage resistant)"
/clone_lib="UI-CF-FN0"
/clone="Torgan: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site_1: EcoR I; Site_2: Not I;
UI-CF-FN0 is a subtracted_CDNA library derived from two normalized Human lung epithelial cell libraries (EN1 and DU1) The library was subtracted according to according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. For additional information, contact:
bento-soares@uiowa.edu
TAG_LIB=UI-CF-FNO
TAG_TISSUE=Human Lung I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             McCray,
                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                              ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:24531277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Iowa City, IA 52242,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 968
                                                                                                                                                                                                                                    (Tl phage resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST 04-NOV-2002
CDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  807
```

Lung Epithelial

Cell Lines untreated

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                   RESULT 3
BM019631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                             뎡
                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                                                         ACCESSION
                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1206
                                                                                                                                                                                                                                                                                                                                           1326
                                                                                                                                                                                                                                                                                                                                                                                                    1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1026
                                                                                                                                                                                                                          1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         314
                                                                                                                                                                                                                                                                                                                134
                                                                                                                                                                                                                                                                                                                                                                        194
                                                                                                                                                                                                                                                                                                                                                                                                                                 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              55
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             727 GCTGGACTGGACCGGGGCCAGGGACCCTTGCCCAGAGTGACTCTGGAGGCCCCCTGGTCTGT 786
                                                                                                                                                                                             14
                                                                                                                                                                                                                                                     74
                                                           mRNA sequence. —
BM019631
BM019631.1 GI:16533985
                 Homo sapiens (human)
                                                TSI
                                                                                                   603647895F1 NIH_MGC_98 Homo sapiens
                                                                                                                   BM019631
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCATTC 1085
                                                                                                                                                                                                                                                                                                                                                                                          CCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTA 1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCACCCAACCTGACTTCCTCTGCCACTCCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGC 1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCCTGCCCAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACGAGACCCTCCAAGGCATCCTCTCTGTGGGGTGTTTACCCCTGTGGCCTCTGCCCAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTGGACTGACCGGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGT
                                                                                                                                                                                                                                                                                                               GACATGITGIGAGGAGACTATGATATAACATGIGTATGITAAATCITCAT-GIGATIGICA 138
                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCACCCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTGACTTTGGGCAAGCCAAGTGC 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAG 1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCC 906
                                                                                                                                                                                                                         AAAAAAAAA 1454
                                                                                                                                                                                                                                                                         TGTAAGGCTTAACACAGTGGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGAAAA 1444
                                                                                                                                                                                                                                                                                                                                                                       CCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGG 1205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCTCATTC 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cecagageerecareererrecreeceagregergaaerereeerrerer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCAGAGGCTCCATCGTCCATCCTTCCT-CCCCAGTCGGCTGAACTCTCCCCTTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6hr to LPS 24h
TAG_SEQ=CTGCTCAGGT"
a 159 c 222 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 699.6; DB 14
Pred. No. 7.6e-131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            171 t
                                                                                                                   mRNA
                                                                                                       cDNA clone IMAGE: S429567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 14; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                   linear
                                                                                                                   EST 30-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             846
                                                                                                                                                                                                                                                     15
                                                                                                                                                                                                                                                                                                                75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
Ś
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                      ß
                                                                     S
                                                                                                                밁
                                                                                                                                                                                         몽
                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     벍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                Ś
                                                                                                                                                                                                                                                                      &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                           125
                                                                                                                365
                                                                                                                                                                                         305
                                                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                                                                                                185
                                                                                                                                                                                                                                                                                                                                                                                                                                                  118 GGCGCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAG
                                                                                                                                                    358
                                                                                                                                                                                                                                298
                                                                                                                                                                                                                                                                                                         238
                                                                                                                                                                                                                                                                                                                                                                                       178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 714)
NIH-MGC http://mgc.nci.nih.gov/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://image.llnl.gov
Plate: LLCM1898 row: m column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          National Institutes of Health,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (
ACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCGC 537
                                                             ACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGGCCCCATCCTGCCAAGGCGA 477
                                                                                                                                                                                                                                                                                                                                                                      GCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGGAAGCCTATGGCGCCCCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                           GGCGCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGACTCCCAGCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCGCCGCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         eeceacrec -- caearcereeceareaeacrececaecrecaecrereecececrer
                                                                                                              TGGGCTCGAGTAGGGGATGACCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACG
                                                                                                                                      TGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCCGGACG
                                                                                                                                                                                       GTGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTG
                                                                                                                                                                                                                                GGTGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTG
                                                                                                                                                                                                                                                                                                         GCGCGCGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCG
                                                                                                                                                                                                                                                                                                                                                GCGGCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGC
                                      ACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGA
                                                                                                                                                                                                                                                                      GCGCGCGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 quality sequence stop: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="astrocytoma grade IV, cell line"
/lab host="DH10B (phage-resistant)"
/cloim lib="NIH_MGC_98"
/cloim lib="NIH_MGC_98"
/cloim lib="NIH_MGC_98"
/cloim lib="NIH_MGC_98"
/cloim lib="NIH_MGC_98"
/cloim lib="NIH_MGC_98"
/cloim lib="NIH_MGC_11brary."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5429567"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          47.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 687.4;
Pred. No. 2.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .2e-128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (LINI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           117
                                                                                                                424
                                                                                                                                                                                         364
                                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                    417
                                                                                                                                                                                                                                357
                                                                                                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                      304
                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                       237
```

. Q & & Q	BASE COUNT ORIGIN Query Match Best Local Matches 74	FEATURES SOURCE	REFERENCE AUTHORS TITLE TOURNAL COMMENT	RESULT 4 BG678912 LOCUS DEFINITION ACCESSION VERSION VERSION KEYWORDS SOURCE ORGANISM	D
GGGGATGATCACCTGCTGCTTCTTCAGGGCGAGAGACTCCGC 41	tch al Similarit	DNA Segue de Clone de found thin http://ii Plate: Li High qua		BG678912 602624621F1 NCI_CGAP_Skn4 Homo sapiens cDNA clone IN mRNA sequence. BG678912 BG678912.1 GI:13910309 EST. Homo sapiens (human)	1
FEATURES SOURCE	VERSION KEYWORDS SOURCE ORGANISM ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT	Db Db RESULT 5 RESULT 5 BG469321 LOCUS LOCUS DEFINITION	Qy Db Qy	B & B & B &	
cDNA Library Preparation: Ling Hong/Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: NIH Intramural Sequencing Center Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLCM1458 row: b column: 17 high quality sequence stop: 728. Location/Qualifiers 1. 794 /organism="Homo sapiens"	BG469321.1 GI:13401596 EST. Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 794) NIH-MGC http://mgc.nci.nih.gov/. National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished Contact: Robert Strausberg, Ph.D. Email: Ggapbs-r@mail.nih.gov	658 AACTOTOCCCTTGTCTGCACTGTTCAAAACCTCTGCGCCTCTAAAAACTCTC 717 1070 CCCTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCC 1109	891 TRAAGCCATACGCTCCAACTGATCCACATGCTACGCTCCAGCTGATCCAGATGTTATGCT 950	358 CHACARCHISTATISTIC INSACTOR CONTROL CARROLL CARROLL CONTROL CARROLL CARROL	

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 751;
                                                                                                                                                                                    602
                                                                                                                                                                                                                                                                              542
                                                                                                                                                                                                                                                                                                                                                                          482
                                                                                          661
                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                     482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123 CCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGGCGGCAGAGGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                         GATATGTGCTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCC 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGC
GATATGTGCTGCACTGGACCGGG--CCAGGACCTTGCCAGAGTGATCTGGAAGGCCC
                                                                                                                     ACTATCCTGAGCCC-TAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCACAACAACAT 719
                                                                                                                                                                                                                                 TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                        CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                        ATGAGCACGATCTCATGTAGCTAAAGCTGGCCAGGCCCGTAGTGCCTGGTGGCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                      ATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCC-GGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGC
                                                                                                                                                                                 TGGGGCACCACGGCCGTCCGGAGAGTGAAGTACAACAAGGGCCTGA-CTGCTCCAGCATC
                                                                                                                                                                                                                                                                           CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTGTATGTCCATCCCAAGTACCACCAGGGCTCAGGACCCATCCTGCCAAGGCGAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGT-TGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCGAGTAGGGGATGACCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACCACTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGGTGT 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ECORI; cDNA made by oligo-dT priming. DTrectionally cloned into EcoRI/Kho! sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)" a 276 c 241 g 139 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_types"adenocarcinoma cell line"
/tissue_types"adenocarcinoma cell line"
/lab host="DH108 (phage-resistant)"
/clone_lib="NIH_MGC_15"
/note="Organ: colon; Vector: pOTB7; Site 1: XhoI; Site 2:
/note="Organ: colon; Vector: pOTB7; Site 1: XhoI; Site 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4660528"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 672.6; DB 10
Pred. No. 2.1e-125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 794;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7;
774
                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                           603
                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
```

Ş 8 S 片 Ş 용 Ś 뭐 Ś 밁 Ş 밁 8 밁 Ş 뮻 Ś g Ś 멍 Ş 뮍 ٠5 B

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
BE898352
                                                                                                        S
                                                                                                                                                      밁
                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
324 GCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCACCT
                                                                                                          264
                                                                                                                                                   181
                                                                                                                                                                                            204
                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  708;
                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                84 GAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGCCCCGGGCTCTGGCCGAAGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                              24 GCAGAGGCACGTCTGGGTCCCCTCCCTTCCTATCGGCGACTCCCAGATCCTGGCCAT 83
                                                                                                                                                                                                                                                                                                                                                                                                           ,_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 717)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         High quality sequence stop: 708.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gov Plate: LLCM819 row: i column: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA sequence.
BE898352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BE898352
717 bp mRNA linear EST 29-SEP-2000 601681169F1 NTH_MGC_9 Homo sapiens cDNA clone IMAGE:3951449 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BE898352.1 GI:10364743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                           CTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                              GCAGAGGCACGTCTGGGTCCCCTCCTTCCTATCGGCGACTCCCAGATCCTGGCCAT
                                                                 CTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGGGT
                                                                                                                                                   GCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCGGCGCTGCTCCCCCCAAAACGACAC
                                                                                                                                                                                                                                                                                                                         GAGAGCTCCGCACCTCCACCTCCGCCGCCTCTGGCGCCCCGGGCTCTGGCGAAGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        117 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="adenocarcinoma cell line"
/lab host="Abth08 (phage-resistant)"
/clone_lib="NIH_MGC_9"
/clone_lib="NIH_MGC_9"
/cloned_lib="NOTB7; Vector: pOTB7; Site_1: XhoI; Site_2: /note="Otgan: ovary; Vector: pOTB7; Site_1: XhoI; Site_2: /cloned_into_EccRI/XhoI sites using the following 5: cloned_into_EccRI/XhoI sites-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDMA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
17 a 252 c 218 g 130 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:3951449"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46.1%;
98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 669.6; DB 10; pred. No. 8.5e-125; 0; Mismatches 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 717;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                w
                                                                                                                                                                                                                                                                                                                                                                     143
                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                   240
                                                                                                                                                                                            263
                                                                                                                                                                                                                                                                                   203
                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ů,
```

```
RESULT 7
BM983288
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /ERSION
                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM983288 11near UI-CF-DUI-aav-i-20-0-UI-SI UI-CF-DUI Homo sapiens UI-CF-DUI-aav-i-20-0-UI 3', mRNA sequence.
BM983288 88983288
                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 686)

Bonaldo, M.F., Lennon, G. and Soares, M.B.

Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM983288.1 GI:19607650
                                                                                                                      (www.openbiosystems.com).
The following repetitive elements were sequence: 497-634, MIR#SINE/MIR Seq primer: M13 FORWARD POLYA=Yes.
                                                                                                                                                                                         Email: paul-mccray@uiowa.edu
Tissue Procurement: Dr. M. J. Welsh, University of Iowa
cDNA Library preparation: Dr. M. Bento Soares, University of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com) or from Open Biosystems
                                                                                                                                                                                                                                                                                                                                                                                                        discovery
Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                   University of Iowa
                                                                                                                                                                                                                                                                                                                                              McCray Lab
                                                                                                                                                                                                                                                                                                                                                             Contact: McCray, PB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTGCTTCTTCAGGGAGAGCAGCTCGGCCGGACCACTCGCTCTGTTCGTCCATCCCAAGTA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCTGTTGTTCCATCCCAAGTA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGACCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGCTGCGGGCCCCTGCCTACCCTACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAGGTCTTCTACCCTGGCGTGGTCACCAA-AACATGATATGTGCTTGACTGGCACGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAGGTCTTCTACCCTGGGGGGGTCACCAACAACATGATATGTGCTGGACTGGACCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGAAGTACAACAAGGGCCTGA-CTGCTCCAGCATCACTATCCTGAGCCCTAAAGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGAAGTACAAGAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTCGCTGGGGCACCACGG-CGCCCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGGGGGCACCACGGCCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGETGGCCAGGCCCGTAGTGCTGGGGCCCCGGGGCCCTGCAGCTTCCCTACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccaccadecreadeccccarecreadecaadeceaacedareadecaccarerearerrecr
                                                                                                                                                                                                                                                                                        University of Iowa Med Labs,
319 356 4866
319 356 7171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                      /mol type="mRNA"
/db xref="taxon:9606"
/clone="UI-CF-DUI-aav-i-20-0-UI"
/tissue_type="Primary Lung Epithelia:
/dev_stage="Adult"
/lab_host="DH10B (Life Technologies)
                                                                               organism="Homo sapiens"
                                                                                                           ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                           Iowa
                             Epithelial Cells"
                                                                                                                                                                                                                                                                                                                        City,
                                                                                                                                                                     found in
                                                                                                                                                                                                                                                                                                                           Ä
  (T1 phage resistant)"
                                                                                                                                                                     this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST 20-FEB-2003
CDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                  δ
                                                                                                                                                                                   닭
                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                          몽
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                      8
                                                                                               Ś
                                                                                                                             片
                   밁
                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 665
                                                                                                                                                                                                               1226
                                                                                                                                                                                                                                                                      1166
                                                                                                                                                                                                                                                                                                                              1106
                                                                                                                                                                                                                                                                                                                                                                                   1046
                                                                                                                                                         1286
                                             1405
                                                                                                  1346
                                                                                                                                                                                                                                                                                                                                                         319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   746
                                                                        619
                                                                                                                                                                                   499
                                                                                                                                                                                                                                            439
                                                                                                                                                                                                                                                                                                  379
                                                                                                                                                                                                                                                                                                                                                                                                              259
                                                                                                                                                                                                                                                                                                                                                                                                                                        986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
                                             GTGGTGAG 1412
                    GIGGIGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147
```

```
al Similarity
665; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCTCGTGGGGTGTTTACCCCTGTGGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCT 1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     decerciación de analytica de la decentración de la 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCTCCACACCTCTAAACATCTCCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTC 1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCTCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTG ACTGTTCAAACCTCTGCC 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATACTACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   recrereses are recent and contract contract contract and contract 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCCACTCCCCCCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTC 1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recereracionalecionariecaegaaereceaaaecratirirecaeaeaaecae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAG 1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arceretrececcaereeseaacrereceerrereacterereacterreaaacererece
                                                                                            TGATATAACATGTGTATGTAAATCTTCAT-GTGATTGTCATGTAAGGCTTAACACAGTGG
                                                                                                                                                                                                                                                                                                                                                     CTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTA 1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              creccacrececeirereacriregecaaeccaaeccaaerecerereaaaecreaerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGTCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCT
TGATATAACATGTGTATGTAAATCTTCATGGTGATTGTCATGTAAGGCTTAACACAGTGG
                                                                                                                                                                                                                                                                              CTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone lib="UI-CF-DUI"
/note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a
/note="Organ: Lung; Vector: BCOR I; Site 2: Not I;
modified polylinker; Site 1: ECOR I; Site 2: Not I;
UI-CF-DUI is a normalized cDNA library containing the
following tissue(s): Primary Lung Epithelial Cells The
following tissue(s): Primary Lung Epithelial Cells The
library was constructed according to Bonaldo, Lennon and
Soares, Genome Research, 6:791-806, 1996. First strand
cDNA synthesis was primed with an oligo-dT primer
containing a Not I site. Double stranded CDNA was ligated
to an ECOR I adaptor, digested with Not I, and cloned
directionally into pT7T3-Pac vector. The oligonucleotide
used to prime the synthesis of first-strand cDNA contains
a library tag sequence that is located between the Not I
site and the (dT)18 tail. The sequence tag for this
library is GGCTGTAGGC.
TAG TIBSUE-Lung Epithelial Cells Tissue nos 359-368
TAG_SEQ=CGCTGTAGGC"
143 g 186 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 652.8; DB 12,
Pred. No. 2.1e-121;
Wirmatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              686;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               925
                                                                                                                                                                   1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                985
                                                                                                                                                                                                                                                                                                           618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                258
                                          678
```

686

<pre>/clone_lib="NCI_CGAP_Skn4" /note="Organ: skin; Vector: pCMV-SPORT6; Site</pre>	478 ACGGATGAGCACGATCTCATGTTGCTAAA-GCTGGCCAGGCCCGTAGTG 525	
<pre>/tissue type="squamous cell carcinoma" /lab_host="DH108 (71 phage-resistant)"</pre>	241 ACTOGGTCTGTTGTCCATCCCAAGTACCACGCAGGCCGTCCAAGGTCCCATCCTTGCCNA 300	дb
/db xref≈"taxon:9606" /clone≈"1MAGE:4752420"	418 ACTOCOTOTOTOTOCOARGENACCACCACGACCACGACCCATCCTCCCAAGGCGA 477	Ś
/org	TGGGCTCGAGTAGGGGATGACCACCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACG	D _D
FEATURES Location/Qualifiers source 1, 686	358 TGGGCTCGAGTAGGGGATGATCACCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACG 417	δ
Plate: LLAM10610 row: g column: 13 High quality sequence stop: 682.	GETGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGGAAACAAGCCACTG	당 \$
found through the I.W.A.G.E. Consortium/LLNL at:	GGTGTPOOTGGTTGGAACCAGTTGGGGTGGCTGACCGGCGCGCACTGCGGAAAACAAGCCACTG	04
oDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Close distribution, MCC Close distribution information Ca	238 GCGCGCGCTCGCAGCCCTGCGCAGTCTTCAACGGCTTTCACTTCACTTCACT	B 15
Tissue Procurement: James Cleaver, M.D. cDNA Library Preparation: Life Technologies, Inc.	GCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGC	2 8
	GCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGC	. S
AUTHORS NIH-MGC http://mgc.nci.nih.gov/. TITLE National Institutes of Health, Mammalian Gene Collection (MGC	Similarity 93.9%; Pred. No. 2.1e-121; 8; Conservative 0; Mismatches 33; Indels	Best 1
	tch	Query
ns (human) ns	BASE COUNT 147 a 260 c 230 g 155 t 1 others	ASE COL
DS EST.	(Stratagene) and Superscript II RT (Life Technologies).	
ON BG679444	in the laboratory of Gerald M. Rubin (University of	
ž	cloned into EcoRI/Xhol sites using the following 5' adaptor: GGCACGAG(G), Library constructed by Ling Hono	
506 P1 #007 345000	/ Cabuse the hours of the priming The prim	
	/ Clasue Eype="aktrocycoma grade iv, ceil alne" //ab_host="DH10B (phage-resistant)" //ab_a lib=matu woo ee	
Db 777 ATGCTGCTGCTGATCCA 793	/OD X.FE(="L4XXXXI: 9000" /CJONE="IMAGE:5013670"	
Qy 946 ATGCTCTGCTGATCCA 962	/ or grants move saptems: /mol type="many"	
Db 717 ATCAATAAAGTCATACGCTCCAATTGATCAGAATGCTACGCTCCAGCTGATCCAGATGTT	urce	Son
Oy 886 ATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTT	a	a di ili vada
	http://image.llnl.gov	
Qy 826 CCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAAATACATGTCCTGG	clone distribution: MGC clone distribution information can be found through the I M. A.G. E. Consortium/ILML Ar.	
TCTGGAGGC	CDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)	
766 70700000000	Email: cgapbs-r@mail.nih.go	
\(\frac{\partial \text{Ty}}{\partial \text{Ty}} \)	AL	JOURNAL
30% CTCACCACACACACACACACACACACACACACACACACA	NIH-MGC http://mgc.nci.nih.gov/.	AUTHORS
Qy	sunaiyota; secazoa; choroata; ciantata; vercebrata; esterebscom; Mammalla; Etheria; Primates; Catarrhini; Hominidae; Homo. RERNCE) [hasea] to 201]	a Contactual
420 TGCCAGGTT	NISM Homo sapiens (human)	ORGANI
	s :	VERSION KEYWORDS
pb 361 ccooper-ccooperccoopercaderreceracecroracteaececogaaaceag	INITION 602870694F1 NIH_MGC_98 Homo sapiens CDNA clone IMAGB:5013670 5', mRNA sequence. mRNA sequence.	DEFINITION
	01000111	BI085143
Db 301 AGGGCGGAACGGATAGAGCACAGATCTCATGTTGCTAAAIGC	0177 6	BSULT 6

```
SOURCE
ORGANISM
                                                                                                                                                                  RESULT 10
BM726274
                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                              Ş
                REFERENCE
                                                                                                                                                                                                                          밁
                                                                                 KEYWORDS
                                                                                               VERSION
                                                                                                             ACCESSION
                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 673;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
  AUTHORS
                                                                                                                                                                                                                                                                                                          1017
                                                                                                                                                                                                                                                  1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    418
                                                                                                                                                                                                                                                                                                                                                            957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              478
                                                                                                                                                                                                                                                                              610
                                                                                                                                                                                                                                                                                                                                   550
                                                                                                                                                                                                                                                                                                                                                                                         490
                                                                                                                                                                                                                                                                                                                                                                                                                   897
                                                                                                                                                                                                                                                                                                                                                                                                                                              430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 597
                                                                                                                                                                                                                          670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11
                                                                                            BM726274 625 bp mRNA linea UI-E-EJO-aih-b-07-0-UI-I UI-E-EJO Homo sapiens UI-E-EJO-aih-b-07-0-UI 5', mRNA sequence.
BM726274 BM726274.1 GI:19047607
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 625)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTCCGGGCCCTGCAGCTTCCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACGGATGAGCACGATCTCATGTTGCTA-AAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGGCCCATCCTGCCAAGGCGA
                                                                                                                                                                                                                                               ACCTCATTCCCCCACC 1092
                                                                                                                                                                                                                                                                              CCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTC
                                                                                                                                                                                                                                                                                              CCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTC 1076
                                                                                                                                                                                                                                                                                                                                    GATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCCCCAGTCGGCTGAACTCTC
                                                                                                                                                                                                                                                                                                                                                         GATCCAGATGCCCAGAGGCTCCATCGTCCATCCTTCCTCCCCAGTCGGCTGAACTCTC 1016
                                                                                                                                                                                                                                                                                                                                                                                         CATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                        CATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCC 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCTGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACGAGGGCCTGACCTGCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCTGGGGCACCACGGCCCCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGGATGAGCACGATCTCATGTTGCTAGAAGCTGGCCAGGCCCGTAGTGCTGGGGCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Site 2: Sall; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.5kb. Library constructed by Life Technologies. Note: this is a NCI_CGAP Library."

3 247 c 163 g 145 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.7%;
                                                                                                                                                                                                                          685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 650.4; DB 10;
Pred. No. 6.3e-121;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                         CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            686;
                                                                                                                                                      EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٧,
                                                                                                                                                     01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477
                                                                                                                                                                                                                                                                                                                                                                                         549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          69
                                                                                                                                                                                                                                                                                                                                                                                                                   956
                                                                                                                                                                                                                                                                                                                                                                                                                                               489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    129
                                                                                                                                                                                                                                                                              669
                                                                                                                                                                                                                                                                                                                                    609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ņ
                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                멼
                                      Ś
                                                                   밁
                                                                                          Ś
                                                                                                                       뮍
                                                                                                                                            Ś
                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                     Matches 622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                    121
                                                                                             847
                                                                                                                                                     787
                                                                                                                         ŝ
                                                                                                                                                                               ,_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97044477
                                                                                                                                                                                                                                                                                                         131
```

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The following repetitive elements were sequence: 498-614, >MIR#SINE/MIR Seg primer: M13 Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: bento-soares@uiowa.edu
Tissue Procurement: Dr. Gregg Hageman
CDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa
Clone Distribution: Researchers may obtain clones from Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rea: 319 335 8250 Fax: 319 335 9565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  University of Iowa
375 Newton Road , 4156 MEBRF, Iowa City,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genetics (www.resgen.com).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Coordinated Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Soares, MB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Normalization and subtraction: two approaches to facilitate
                                                                                                                                                                                                                                                                                    GACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCAT
                                                                                                                                                                                                                                                                                                                                                           GCTGGACTGGACCGGGCCAGAACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGT
                      AACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTC^TGATCCAGATG 966
                                                                                                                   CCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCC
                                                                                                                                                                          CCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCC
                                                                                                                                                                                                                                       GACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCCTCTGCCCAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGGACTGGACCGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGT 786
AACTGATCCAGATACTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified polylinker; Site 1: EcoR I; Site 2: Not I;
UIT-S-EJO is a subtracted CDNA library constructed
according to Bonaldo, Lennon and Soares, Genome Research,
6:791-806, 1996. First strand cDNA synthesis was primed
with an oligo-dT primer containing a Not I site. Double
stranded cDNA was ligated to an EcoR I adaptor, digested
with Not I, and cloned directionally into pT773-Pac
vector. The oligonucleotide used to prime the synthesis of
first-strand cDNA contains a library tag sequence that is
located between the Not I site and the (dT)18 tail. The
sequence tags for this library are: fetal eyes, AGAATCAAGA;
jlens, CGATTAAGCA; eye anterior segment, AATGCCGCAT;
optic nerve, CGATTAAGTG; retina, CGGGG; Retina Foveal and
Macular, GTCC; RPE and Choroid, ACCTA. This library was
created for the program, Gene Discovery in the Visual
System, supported by National Eye Institute (NEI)."

31 a 209 c 133 g 151 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH108 (Life Technologies) (T1 phage resistant)"
/clone_lib="UI-E-EJO"
/note="Organ: eye; Vector: pT7T3-Pac (Pharmacia) with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="UI-E-EJO-ain-b-07-0-UI"
/tissue_type="fetal eyes, lens, eye anterior segment,
optic nerve, retina, Retina Foveal and Macular, RPE a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/moi_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dev_stage="fetal and adult"
lab_host="DH108 (Life Techno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 620.8; DB 12;
Pred. No. 5.8e-115;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for Computational
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bento Soares, Univeristy of Iowa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              found in this cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IA 52242,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
                                                                                                                   180
                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                    846
                                                                                                                                                                             906
                                                                                                                                                                                                                                                                                                                                                              60
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
AI859367/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           wm10f02.xl NCI_CGAP_Ut4_Homo sapiens cDNA_clone IMAGE:2435547 3' similar to SW:PSL1_HUMAN_O43240_PROTEASE_SERINE-LIKE_1_PRECURSOR_;, A1859367
                                                                                                                                                                                                   cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 913 Std Exror: 0.00
Seq primer: -40UP from Gibco
High quality sequence stop: 118.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D.,
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Manmalia; Eutheria; Primates; Catarrhini; Hominid
1 (bases 1 to 736)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AI859367.1 GI:5512983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCACCCAACCTGACTTCCTCTGCCACTCCCCGGTGTGTGACTTTGGGCAAGCCAAGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACATGTTGTGAGGAGACTATGATAT 1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTCTGAACCTCAGTTTTCCTCATCTGCAAAAATGGGGAACAATGACGTGCCTACCTCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACATGITGIGAGGAGACTATGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTATTCCAGAGAAGCCAGGAAGTCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACCTATCCCCATTCTCTGCCTGTACTGAAGGCTGAAATGCAGGAAGTGGTGGCGAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACTGTTCANACCTCTGCCGCCCTCCACACCTCTANACATCTCCCCCTCTCACCTCATTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTGTTCAAACCTCTGCCGCCCCCCACACCCTCTAAACATCTCCCCCTCTCACCTCAATTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene Index
                 /lab_host="DH10B"
/clone lib="NCI CGAP Ut4"
/clone lib="NCI CGAP Ut4"
/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: Sall;
/site_2: NOt1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.48 kb. Life Technologies catalog #:
                                                                                               pooled
                                                                                               tissue_type="serous papillary
                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2435547"
                                                                                                                                                                         organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                             carcinoma,
                                                                                                                                                                                                                                                                                                                                                                           Ph.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Project (CGAP),
                                                                                                             high
                                                                                                                                                                                                                                                                                                                                                                           Michael
                                                                                                             grade,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                       RESULT 12
BE899455
LOCUS
                                                SOURCE
ORGANISM
                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                   몂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                          DEFINITION
                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176 AGGCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGT
                                                                                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      675
                                                                                                                                                                                                                                                                  895
                                                                                                                                                                                                                                                                                                                            835
                                                                                                                                                                                                                                                                                                                                                                                        775
                                                                                                                                                                                                                                                                                                                                                                                                                                                    716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 735 AGAGCGCGCTGCTCCCCCAAAACGCACGCGCTTGGACCGAAAGGCNTATGGCGCNCCGT
                                                                           BE899455
601682234F1 NIH_MGC_9 F
mRNA sequence.
BE899455
BE899455.1 GI:10366783
BS899455.1 GI:10366783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              681;
                                                                                                                                                                                                                                     17
                                                                                                                                                                                                                                                                                               77
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                              Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGTGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCACTGCGGAAACAAGCCAC
                                                                                                                                                                                                                                                       GTCATACGCTCCAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                          ACATGATATGTGCTGGACTGGACCGGGGCCA-GGACCTTGCCAGAGTGACTCTGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGCTGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCCAGTGCCAGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGACTCGCTCTTTTTCCATCNCAAGTA-CACCAGGCCTCAGGCCCCATCCTGCCAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGCGCGCGCTCGCAGCCCTGGCAGGTCTCGCTCTTC-ACGGCTCTCGTTTCCACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGCGCGCCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCCGTTCCACTGCG
                                                                                                                                                                                                                                     GTCATACGCTCCAACTG
                                                                                                                                                                                                                                                                                               TCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAA
                                                                                                                                                                                                                                                                                                                         TCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAA
                                                                                                                                                                                                                                                                                                                                                                                        CCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                        ACATGATATGTGCTGGACTGGACGGGGGGCAGGGACCCTTGCCAGAGTGACTCTGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCANCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAAACCAATGCCAAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGTGTCCTGGTGGACAGAAGTTGGGTGCTGACGCCGCGCCACTGCGNAAACAAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGCTTGGGCACCACGGCCGCCCGGAAAATTAAGTTCCACCAAGGCCTGACCTTCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11542-016"
a 207 c
                                                                                            GI:10366783
                                                               (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42.6%;
                                                                                                                                                                                                                                                                  911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
Pred
                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ore 619.2; DB 9;
ed. No. 1.2e-114;
Mismatches 53;
                                                                                                                                                         966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ġ
                                                                                                                                         sapiens
                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          138
                                                                                                                                         mRNA
cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53
                                                                                                                                         linear
clone IMAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ψı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          others
                                                                                                                                         near EST 29-SEP-2000
IMAGE:3952448 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            υ
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

18 894 78 834 138 774 198 715 258 655 318 595 378 535 438 475 497 415 557 ω 55 617 295 676

```
REFERENCE
AUTHORS
TITLE
                                                                                     Ś
                                                                                                                                 용
                                                                                                                                                                Ş
                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 706; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                     502
                                                       420
                                                                                           442
                                                                                                                                 361
                                                                                                                                                                    382
                                                                                                                                                                                                        301
                                                                                                                                                                                                                                            322
                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                        262
                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                 202
                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 866)
NIH-MGC http://mgc.nci.nih.gov/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: image.llnl. Plate: LLCM822 row: c column: 09 High quality sequence start: 5 High quality sequence stop: 692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
CTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCGGGGCCCGGGCCCTGCAGCTTCCCTAC
                                                                                                                                                                                                                              GTGCTGACGGCGCGCACTGCGGAAACAACCCACTGTGGGCTCGAGTAGGGGATGATCAC
                                                                                                                                                                                                                                                                                                                                                             CTGCCGCTGCTGATGGCCCAACTCTGGGCCGCAGAGGCGGCGCGCTGCTCCCCCAAAAACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGAGAGCTCCGCACCTCCACCTCTCGCCGCCTCTGGCGCCCGGGCTCTGGCGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCAGAGGCACGTCTGGGTCCCCTCCCTCCTTCCTATCGGCGACTCCCAGATCCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCAGAGGCACGTCTGGGTCCCCTCCCTTCCTATCGGCGACTCCCAGATCCTGGCC
                                                                                                                                                                                                        GTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGACCAC
                                                                                                                                                                                                                                                                                  GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG
                                                                                                                                                                                                                                                                                                        GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCGGCGCTGCTCCCCCAAAACGAC
                                                                                         TACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTG
                                                                                                                                                                    CTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCTGTTGTCCATCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAGAGCTCCGCACCTCCACCTCCGCCGCCTCTGGCGCCCCGGGCTCTGGCGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="adenocarcinoma cell line"
/lab host="DH10B (phage-resistant)"
/clome_lib="NIH_MGC_p"
/clome_lib="NIH_MGC_p"
/clome_lib="NIH_MGC_p"
/clomed_into_wary; Vector: pOTB7; Site_1: XhoI; Site_2:
/note="Organ: ovary; Vector: pOTB7; Site_1: XhoI; Site_2:
/note="Organ: ovary; Vector: poTB7; Site_1: XhoI; Site_2:
/clomed_into_ECORI/XhoI sites using the following 5/
clomed_into_ECORI/XhoI sites using the following 5/
adaptor: GGCACGAG(G). Size-selected >500bp for average
insert size_1.8kb. Library constructed by Ling Hong in
the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDM, synthesis kit
(Stratagene) and Superscript II RT (Life Technologies)."
57 a 282 c 261 g 166 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            clone="IMAGE:3952448"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 601; DB 10;
Pred. No. 5.7e-111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 866;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vog.
                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                   561
                                                         479
                                                                                           501
                                                                                                                               419
                                                                                                                                                                    441
                                                                                                                                                                                                        360
                                                                                                                                                                                                                                            381
                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
CB216785
                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                               ORIGIN
                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tocas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                         Matches
                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480 CTGAAGCTGGC--AGGCCGTAGTGCTGGGGCCCCGCGT-CGGGCCCCTGCAG--TTCCCTA 534
                                                       al Similarity
604; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 614
NISC nq08h06.y1 NICHD HS_Ut2
5', mRNA sequence.
CB216785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA Library Arrayed by: The I.M.A.G.E. DNA Sequencing by: National Institutes (Sequencing Center (NISC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plate: LLAM13166 row: P column:
Seq primer: M13RP1 reverse primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov cDNA Library Preparation:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĽSŒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CB216785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CB216785.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clone distribution: NCI-CGAP clone distribution found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumor Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          info@image.llnl.gov
Plate: LLAM13166 ro
                   AGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAG 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGTGGGG----CACACGCGCGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cecrerecreacecegaacaceaereceaerrecreecreecececeaecaceaececece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GG-CAGGACCCTTGGCAGAGTGAATCTGGAGGCCC 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCC 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTGAGGTCTTCTACCCTGGCGTGGTCACCAACATGATATGTGCTGGTCTGGACTGGACCGG 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGTGAAGTACAACAAGGGC---TGACTGTCCAGCATCACTATCTTGAGCCCCTAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 614)
94
                                                                                                                                       /lab host="DH108 (T1-resistant)"
//clone lib="NICHD HS (tt2"
//clone lib="NICHD HS (tt2"
//note="Organ: uterus; Vector: pCMV-SPORT6.1.ccdb (ResGen, Invitrogen Corporation); Site 1: NotI; Site 2: EcoRV; Invitrogen Corporation); Site 1: NotI; Site 2: EcoRV; Cloned unidirectionally from microquantity amounts of mRNA from normal endometrial tissue (mid-secretory phase, cycle day 23). Average insert size 1.6 %b. Library constructed by ResGen (Invitrogen Corporation)."
                                                                                                                                                                                                                                                                                                              tissue_type="normal endometrium,:
ycle day 23"
                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens'
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                  clone="IMAGE:5938427"
                                                                                                                                                                                                                                                                                                                                               sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:28264977
                                                                                                                                                                                                                                                                                                                                                                                                                                        .614
                                                                      41.3%;
                                                       0
                                                     Score 600.4; DB 14
Pred. No. 7.5e-111;
0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA linear EST 06-FEB-2003
sapiens cDNA clone IMAGE:5938427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12
(ABI).
                                                                                     DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of Health
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Consortium/LLNL
                                                                                                                                                                                                                                                                                                                                mid-secretory
                                                       Indels
                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Intramural
                                                       0
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     707
                                                       0
```

Indels Length 1116;

œ --Gaps

784

120 725 60 665 6

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
BE736690
                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rocus
                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                  Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1116)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                            cDNA Library Preparation: Ling Hong/Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://imagg.llnl.gov http://imagg.llnl.gov
                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BE736690 1116 bp a 601305722F1 NIH_MGC_39 Homo sapiens mRNA sequence.
                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                     BE736690.1 GI:10150682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ហ
                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGGGCACCA 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGCCCTGCAGCTTCCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTCGAGTAGGGGATGACCACCTGCTGCTTCTTCAGGGAGAGCAGCTCCGCCGGACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCTGGTCGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGCTGCTCCCCAAAACGACACGCGCTTTGGACCCCCGAAGCCTTATGGCCCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGAGCACGATCTCATGTTGCTGAAGCTGGCCAGGCCCGTAGTGCTGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGGCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCGGGCTCTGGCCAAGCTGCTGCCGCTGATGGCCCAACTCTGGGCCGCAGAGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCGGCCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCCAAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCTGCTCCCCAAAAACGACACGCGCTTGGACCCCCAAAGCCTATGGCTCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCGGCCTCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCGCCTCTGGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           quality sequence stop: 647.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                    sapiens
             /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA clone IMAGE: 3640084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST 15-SEP-2000
                                                                                                                                      þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ń
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
   RESULT 1S
AI859383/c
LOCUS
                                                                                                                      S
                                                                                                                                                                     ₽
                                                                                                                                                                                                Š
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                         Ó
                                                                                                                                                                                                                                                                                                                   멼
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                1143
                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                         1083
                                                                                                                                                                                                                                                                                                                                                                                                                                 1025
                                                                                                                                                                                                                                           541
                                                                                                                                                                     599
                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        726 TGCTGGACTGGACCGGGGCCAGGACCCTTGCCA-GAGTGACTCTGGAGGCCCCCTGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          606 CACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCTCACTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 CCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATG
   AI859383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CACCACGGCCGGCGGAGAGTGAAGTACAAGGGCCTGACCTGCTCCAGCATCACTAT
                                                                                                                                                                                       TGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTTG--GGCAAGCC 1259
                                                                                                                                                                                                                                                             AAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCGAGTTAC- 1201
                                                                                                                                                                                                                                                                                                                                       TTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCA 1142
                                                                                                                                                                                                                                                                                                                                                                                      TGCACTGTTCAAACCTCTGCCGGCCCATCCACACCTCTAAACATCTCCCCTCTCACCTCA
                                                                                                                            AAGTGCCCTCTCTGAACCTCAGTTTCC 1286
                                                                                                                                                                                                                                                                                                                TTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAAGCTGAAATGCAGGAAGTGGTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCCAGAGGCTCCATCGTCCATCCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTC 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CCAACTGATCCAGATGCTACGCTCCAGACTGATCCAGATGTTATGCTCCTGCTGATCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGACGAGACCCTCCAAGGCATCCTCTGGTGGGGTGTTTACCCCTTGTGGCTCTGCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTGGACTGGACCGGGCCAGGACCCTTGCCATGAGTGACTCTGGAGGCCCCCTGGTCT
                                                                                                                                                                 TGGGGTCACCCAGACTGACTTCCTCTGCCATTCCCCGCTGTGTGACTTTGGCGCCAAGCCA
                                                                                                                                                                                                                                         AAGG-TAATTCCAGAGAAGCCAGGAAG-CGGTCATCACCCAGCCTCTGAGAGCAGTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                     TGCACTGTTCAAACCTCTGGCG--CCCTCCACACCTCTAAACATCTCCCCTCTCACCTCA 1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCCTCTGCCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTCGTCACCAACAACATGATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="IMAGE:3640084"
/tissue_type="adenocarcinoma"
/lab_host="bH10B (phage-resistant)"
/clone_lib="NIH_MGC_39"
/note="Organ: pancreas; Vector: pOTB7; Site_1: XhoI;
Site_2: ECORI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/NoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40.7%;
97.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 591.8; DB 10
Pred. No. 4.1e-109;
 727
ďď
                                                                                           585
 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
```

linear

EST 07-MAR-2000

598

658

540

420

360 964 300 904 240 844 180

480

5 g S 밁 S g Š 닭 δ g δ В á 밁 Ş 밁 S 밁 Ş 맑

음 6 명 왕

Qy 481 Db 433	Qy 421 Db 493	Qy 36: Db 55:	Qy 301 Db 610	Qy 241 Db 667	Qy 181 Db 727	Query Match Best Local Si Matches 671	FEATURES Source FORIGIN	JOURNAL (COMMENT F	REFERENCE 1 AUTHORS N TITLE N	ACCESSION INVERSION INVERS	DEFINITION v
1 GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGGTC 540 	1 CGCTCTGTTGTCCATCCCAAGIACCACCAGGGGCTCAGGCCCATCCTGCCAAGGCGAACG 480 	1 GCTCGAGTAGGGGATGATCACCTGCTTGCTTCAGGGCGAGCAGCTACCCGCCGGACGACT 420	1 GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAAACAAGCCACTGTGG 360	1 CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTGCGTTCCACTGCGCGGGT 300 [1 GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG 240	h 39.9%; Score S80; DB 9; Length 727; Similarity 91.5%; Pred. No. 9.7e-107; 71; Conservative 0; Mismatches 55; Indels 7; Gaps 6;	CDNA Library Frequencies in the Incomplete, Anc. CDNA Library Arrayed by: Greg Lennon, PR.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: www-bio.llnl.gov/bbrp/image/image.html Insert Length: 919 Std Error: 0.00 Seq primer: -40UP from Gibco Seq primer: -40UP from Sibco High quality sequence stop: 423. Location/Qualifiers 1. 727 /organism="Homo sapiens" //ob_Tref="raxon:9606" //db_Tref="raxon:9606" //clone="IMADE:2435571" //tissue_type="merous papillary carcinoma, high grade, 2 pooled tumors" //lab bost="PH108" //clone lib="NCI CGAP Ut4" //organ: uterus; Vector: pCMV-SPORT6; Site 1: SalI; Site 2: NotI; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.48 kb. Life Technologies catalog #: 137 a 208 c 235 g 132 t 15 others	Unpublished Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R. Emmert-Buck, M.D., Ph.D.	to 727) tp://www.ncbi.nlm.nih.gov/nci ncer Institute, Cancer Genome Index	mRNA sequence. A1859383 A1859383.1 GI:5512999 EST. Homo sapiens (human) Homo sapiens (human) Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Butheria; Primates; Catarrhini; Hominidae; Homo.	m10h02.x1 NCI CGAP Ut4 Homo sapiens cDNA clone IMAGE:2435571 3', similar to SW:PSL1 HUMAN O43240 PROTEASE SERINE-LIKE 1 PRECURSOR ;,

900	840 73	780 133	721 193	661 253	601 313	541 373	
ACGCTCCAACTGA 912	CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCAT 899	GGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGC 839	ATATGTGCTGGACTGGACC-GGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCT 779	ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG 720	TGGGGCACCACGGCCGCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC 660	CGGGCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC 600	

Search completed: November 25, 2003, 07:29:52 Job time : 3311 secs

```
Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                            Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
5: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
6: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
8: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
9: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
9: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
16: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             November 25, 2003, 06:34:44 ; Search time 486 Seconds (without alignments) 9856.953 Million cell updates/sec
                                                                                                                           8:
9:
10:
12:
13:
14:
15:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2190069 seqs, 1647345023 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-021-368-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4380138
```

SUMMARIES

Result No.	Score	Query Match	Length	BIG	ID	Description
ا ا ا ا	1454	100.0	1454	12	US-10-059-579-94	94,
N	1454	100.0	1454	12	US-10-301-822-94	Sequence 94, Appl
ω	1454	100.0	1454	12	US-10-366-288-51	Sequence 51, App.
4.	1454	100.0	1454	13	US-10-021-368-2	Sequence 2, Appl
ŭ:	1454	100.0	1454	14	US-10-097-340-166	Sequence 166, App
on :	1442	99.2	1457	12	US-10-101-510-78	Sequence 78, Appl
7	829.4	57.0	831	9	US-09-888-615-28	Sequence 28, Appl
œ	508.4	35.0	532	10	US-09-964-824A-311	Sequence 311, App
Q.	508.4	35.0	532	10	US-09-867-701-5534	
10	508.4	35.0	532	10	US-09-954-531-611	Sequence 611,
<u>,,</u>	508.4	35.0	532	10	US-09-954-531-1014	Sequence 1014, Ap
c 12	448.4	30.8	454	ų O	US-09-867-701-5635	Sequence 5635,
	447.4	30.8	449	10	US-09-867-701-5352	Sequence 5352,
	445.4	30.6	470	10	US-09-867-701-2778	Sequence 2778,
c 15	438.4	30.2	468	10	US-09-867-701-2781	Sequence 2781,
	383.8	26.4	399	10	US-09-867-701-5175	Sequence 5175,

							ი ი		1.4	1.3	Ω Lu				o O			o N	ຸນ			ი ი			ი 2				ი -
'n	44	-								8		4	ũ	2	ï	30			7	ď	ű	À	ω̈	N	įū	Ö	9	80	`
203.4	203.4	243.4	200		263.4	267.2	267.2	267.2	274.6	295	302.8	310	319	319	319	329.4	335.6	345.4	352	353	353	353	367	376	376	376	376	376	3.4.0
14.0	14.0	16.7	1.0	1 1	18.1	18.4	18.4	18.4	18.9	20.3	20.8	21.3	21.9	21.9	21.9	22.7	23.1	23.8	24.2	24.3	24.3	24.3	25.2	25.9	25.9	25.9	25.9	25.9	1.07
205	205	267	1) i	53.4	283	283	283	292	339	335	577	321	321	321	349	377	359	421	373	373	373	434	396	396	396	396	396	
14	9	, L	5	5	ב	10	10	10	10	10	14	12	ü	10	9	10	10	10	10	13	10	φ	10	10	10	10	10	10	,
US-10-015-219-697	US-09-//-564-69/	US-U9-86/-/UI-2/88	US-09-86)-701-8-98	TIC-00-867-701-2292	US-09-918-995-11103	US-09-867-701-5275	US-09-964-824A-519	US-09-964-824A-89	US-09-867-701-4573	US-09-867-701-5872	US-10-066-543-1805	US-10-029-386-9883	US-10-025-380-965	US-09-833-263-965	US-09-922-217-965	US-09-867-701-3190	US-09-879-536-672	US-09-867-701-5330	US-09-867-701-4747	US-10-025-380-881	US-09-833-263-881	US-09-922-217-881	US-09-867-701-2931	US-09-954-531-1220	US-09-880-107-993	US-09-867-701-4552	US-09-954-456-1462	US-09-954-456-149	00 00 00 00 00 00 00 00 00 00 00 00 00
Sequence 69/, App	, ŭ	Sequence 2700, Apr	de de la companya de		Sequence 11103, A	Sequence 5275, Ap		200	45/			886		200	965	္င			Sequence 4/4/, Ap	000	8	Sequence 881, App	8 29	1220		4554	1402,		

ALIGNMENTS

Qy 61 GGGG Db 61 GGGG Qy 121 GCGG	Query Match Best Local Similarity Matches 1454; Conserv Qy	US-10-059-579-94 US-10-059-579-94 Sequence 94, Application US/100 Publication No. US20030138783A1 GENERAL INFORMATION: APPLICANT: THE JOHNS HOPKINS U APPLICANT: EVRON, E11a APPLICANT: EVRON, E11a APPLICANT: DAVIDSON, Mancy APPLICANT: DAVIDSON, Mancy APPLICANT: DAVIDSON, Mancy APPLICANT: FACKLER, Mary Jo. TITLE OF INVENTION: ABERRANTLY FILE REFERENCE: JHU630-1 CURRENT APPLICATION NUMBER: US CURRENT FILING DATE: 2003-02- PRIOR APPLICATION NUMBER: US O PRIOR FILING DATE: 2001-01-26 INMBER OF SEQ ID NOS: 136 SOFTWARE: PatentIn version 3.1 SEQ ID NO 94 LENGTH: 1454 TYPE: DNA GRGANISM: Homo sapiens
GECGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCGCCGCCTCTGGC 120	100.0%; Score 1454; DB 12; Length 1454; Similarity 100.0%; Pred. No. 0; i; Conservative 0; Mismatches 0; Indels 0; Gaps 0; ACCAGCGGCAGACCACAGGCAGGCAGAGGCAGGTCTGGGTCCCCTCCCT	-10-059-579-94 -10-059-579-94 -10-059-579-94 publication No. US20030138783A1 GENERAL INFORMATION: APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE APPLICANT: SUKUMAR, Saraswati APPLICANT: EVRON, Ella APPLICANT: DOCLEY, William C. APPLICANT: DAVIDSON, Nancy APPLICANT: ACCLER, Mary Jo. TITLE REFERENCE: JUHI050-1. TURRENT APPLICATION NUMBER: US/10/059,579 CURRENT APPLICATION NUMBER: US 09/771,357 PRIOR APPLICATION NUMBER: US 09/771,357 PRIOR FILLING DATE: 2001-01-26 NUMBER OF SEQ ID NOS: 136 SOFTWARE: PatentIn version 3.1 SEQ ID NO 94 TYPE: DNA ORGANISM: Homo sapiens -10-059-579-94

유성

성 음 성

멍

장 유

ß

```
1021
               1201
                                1141
                                                 1141
                                                                   1081
                                                                                     1081
                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                       961
                                                                                                                                                         961
                                                                                                                                                                          901
                                                                                                                                                                                           901
                                                                                                                                                                                                            841
                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATGTCCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                    ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                            GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGGGTC
                                                                                                      CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                       CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                          GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                       TGGGGCACCACGGCCCGGGAGAGTGAAGTACAACGAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                  TGGGGCACCACGGCCGGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                             CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                             CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                               GTCTGTGACGAGACCCTCCAAGGCATCCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
             CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGACTTTGGGCAAGCCA 1260
                                                                    CATTCCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
 1260
                                   1200
                                                   1200
                                                                                       1140
                                                                                                        1080
                                                                                                                        1080
                                                                                                                                                                             960
                                                                                                                                                                                             960
                                                                                                                                                                                                              900
                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ŷ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
  片
              ð
                                  유
                                                                    g
                                                                                   S
                                                                                                       밁
                                                                                                                      5
```

S

δ

유정망

성 참 성 유

В

g

```
Sequence 94, Application US/10301822
Publication No. US20030148410A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals, If
APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
APPLICANT: Kamatkar, Shubhangi
APPLICANT: Schlegel, Robert
APPLICANT: Schlegel, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-10-301-822-94
                                                                                                                         Query Match 100.0%; Score 1454; Best Local Similarity 100.0%; Pred. No. 0; Matches 1454; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
              181
                              121
                                             121
181
                                                             61
                                                                            62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAAAAAAAAAAAAAAAAAAAAAAAAAAA
                                                            GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                               GCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                     GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                            ĠĊĠĊŢĠĊŢĊĊĊĊĊĸĸĸĸĊĠĸĊĸĊĠĊĠĊŢŢĠĠĸĊĊĊĠĸĸĠĊĊŢĸŢĠĠĊĠĊĊĊĊĠŢĠĊĠĊĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1454
                                                                                                                            Mismatches
                                                                                                                            0
                                                                                                                            Indels
                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1440
                240
                                 180
                                                180
                                                               120
                                                                               120
                                                                                               60
                                                                                                                                                                                                                                                                                                                      AND
                                                                                                                             0
```

```
1201
                                                                                  1201
                                                                                                                                                                          1081
                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACCGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                       CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGTGG
                                                                                                                                                                                                                                                                                                                                                     CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGCACCACGGCGCCGCAGAGAGTGAAGTACAACAAGAGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                 AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                  CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                   TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                             CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCCT
                                                                                                                                                                                                                                                                                                              CAGATGCCCAGAGGCTCCATCCTCCATCCTTCCTCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                              GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACATG
                                                                            CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                    TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGCACCACGGCCGGCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
1320
                          1320
                                                       1260
                                                                                   1260
                                                                                                                 1200
                                                                                                                                             1200
                                                                                                                                                                          1140
                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                 1080
                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
```

몽 Ş 뮍 Ş 밁 Ş 밁 Ş 밁 Ş 뮍 Ş 밁 Š 멼 8 뮹 Ş 맑 Ş В

241

δ

밁

8

유

8 밁 8 ₽ Ş

밁

Ś 닭 Ś

B

```
PRIOR APPLICATION NUMBER: 60/357,391
PRIOR FILING DATE: 2002-02-15
PRIOR APPLICATION NUMBER: 60/380,249
PRIOR RETLING DATE: 2002-05-13
PRIOR APPLICATION NUMBER: 60/391,306
PRIOR APPLICATION NUMBER: 60/391,306
PRIOR PILING DATE: 2002-06-25
PRIOR PILING DATE: 2002-08-27
PRIOR FILING DATE: 2002-08-27
PRIOR FILING DATE: 2002-08-27
PRIOR FILING DATE: 2002-08-19
PRIOR APPLICATION NUMBER: 60/412,007
PRIOR APPLICATION NUMBER: 60/417,508
PRIOR APPLICATION NUMBER: 60/432,318
PRIOR FILING DATE: 2002-10-10
PRIOR PRIOR DATE: 2002-10-10
PRIOR PRIOR DATE: 2002-12-10
PRIOR FILING DATE: 2002-12-10
NUMBER OF SEQ ID NOS: 52
SOFTWARE: FastSEQ for Windows Version 4
SEQ ID NO 51
LENGTH: 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                        Ş
                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo US-10-366-288-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 3
US-10-366-288-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                  밁
                                                                                              8
                                                                                                                                        뭐
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                       Ś
                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 51, Application US/10366288

Sequence 51, Application US/10366288

Sequence 51, Application US/10366288

Sequence 51, Application Woldon State Composition State Composition State Composition For Treating First Powell, Douglas Applicant: Weich, Nadine State Compositions For Treating Tive Of INVENTION: MIDS AND HIV-RELATED DISORDERS USING 1414, 1481, 1553, TITLE OF INVENTION: 34021, 1720, 1683, 1552, 1682, 1675, 12825, 9952, 5816, TITLE OF INVENTION: 10002, 1611, 1371, 14324, 126, 270, 312, 167, 326, 18926, TITLE OF INVENTION: 6747, 1793, 1784 OR 2045 MOLECULES

FILE REFERENCE: MPTO2-05-51-RNOWLM CURRENT APPLICATION UNDER: US/10/366,288

CURRENT FILING DATE: 2003-02-13

CURRENT FILING DATE: 2003-02-13

CURRENT FILING DATE: 2003-02-13
                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1454; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                241
                                                                     181
                                                                                                                                           121
                                                                                                                                                                             121
                                                                                                       181
                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          767678484848484 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                               GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC
                                                                                                                                                                                                                                               GCCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCACCTCTCCGCCCCTCTGGC
                                                                                                                                                                                                                                                                                     CGCGGCTCGCAGCCCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                  CGCGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                       GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                      GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sapien
                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Version
                                                                                                                                                                                                                                                                                                                                                           Score 1454;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                 DB 12;
                                                                                                                                                                                                                                                                                                                                                             0.
                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                   1454;
                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380
                                   300
                                                                                                                                           180
                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                             60
                                                                       240
                                                                                                           240
                                                                                                                                                                               180
                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                               0
```

```
1321
                                                                                         1261
                                                                                                                       1201
                                                                                                                                                  1201
                                                                                                                                                                                 1141
                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                           106
                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGCACCACGCCGGCCCGGAGAGTGAAGTACAACGAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCTCTGTTGTCCATCCCAAGTACCACCAGGCTCAGGCCCATCCTGCCAAGGCGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGGCACCACGGCCGGCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                          TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                  CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAACTCTCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                             CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGAGCAGTTA 1200
                                                                                                                                                                                                                                             CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                 CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                              AGTGCCCTCTCTGAACCTCAGTTTCCTCAATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                       CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTTGGGCAAGCCA
                                                                                                                                              CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                       TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                              AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                   1380
                                                                                               1320
                                                                                                                                                         1260
                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                            1260
                                                                 1320
```

유 상 유 상 명

유 성 유 성 유 성

참 성 음 성 음 성

유정

S

ち 음 중

밁

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
US-10-021-368-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                             Š
                                                                                           밁
                                                                                                                    á
                                                                                                                                                  밁
                                                                                                                                                                        S
              Ş
                                          당
                                                                                                                                                                                                                                                          US-10-021-368-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Application US/10021368

Publication No. US20020106367A1

GENERAL INFORMATION:
GENERAL INFORMATION:
NES-1 POLYPEPTIDES, DNA,
TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA,
                                                                                                                                                                                                   Query Match
Best Local Simi
Matches 1454;
                                                                                                                                                                                                                                                                                                                                                 TELEX: 200154
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION UNMER: 09/201,03
APPLICATION UNMER: 09/201,03
FILING DATE: «UNKNOWN»
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION UNMERE: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSE: Fish & Richardson P.C.
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: cDNA SEQUENCE DESCRIPTION:
                181
                                           121
                                                                   121
                                                                                              61
                                                                                                                      61
                                                                                                                                                                   سو
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/10/021,368
FILING DATE: 12-Dec-2001
CLASSIFICATION: <unknown>
                                                                                            GOCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCACCTCTCGGCGCCTCTGGC
                                                                                                                                                                                                                                                                                                           LENGTH: 1454 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                         GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAAACTCTGGGCCGCAGAGGCCG
                                                                                                                                                 Conservative
                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                       SEQ ID
                                                                                                                                                                                                       ç
                                                                                                                                                                                                      Score 1454;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                        NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ,038
                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Version
                                                                                                                                                                                                                                  멂
                                                                                                                                                                                                                                  13,
                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #1.30
                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                  Length
                                               creecceckekeece
                                                                                                                                                                                                                                    1454;
                                                                                                                                                                                                         0
                                                                         180
                                                                                                                           120
                                                                                                                                                      60
                                                                                                                                                                                 60
                     240
                                               180
                                                                                                  120
```

```
1261
                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
            1261
                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                      AGTGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC 1320
                                                                                                                                                                                                                                                                                                                                                                                                          CATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA 900
                                                                                                                                                                                                                                                CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                      CARAGGITTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATATETECTEGACTEGACCEGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATATIGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTATECTGAGECETAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGGCACCACGGCCCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGGGAGCAGCTCCGGCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTGGTGGACCAGAGTTGGGTGACTGACGGCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGGCTCGCAGCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGCTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cceeccie caecine ce con contracte de la contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCCGTGCGCG
                                                                                                                                                                                                                                             1200
                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                      Ś
吊
                                                                                                            g
                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                      61
```

8 B

용

유

Ś

Ś

유 성

밁

음 성

밁

중 유

중 음 중 음

8 8 8 8 8 8 8

음 성

8 8 8 8 8 8 8 8

```
APPLICANI: Karen GLATT
APPLICANI: Karen GLATT
ITTLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification,
ITITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer
FILE REFERENCE: MRI-030
CURRENT APPLICATION NUMBER: US/10/097,340
CURRENT APPLICATION NUMBER: 60/276,025
PRIOR APPLICATION NUMBER: 60/325,149
PRIOR FILING DATE: 2001-03-14
PRIOR FILING DATE: 2001-03-14
PRIOR APPLICATION NUMBER: 60/325,149
PRIOR APPLICATION NUMBER: 60/325,496
PRIOR APPLICATION NUMBER: 60/324,967
PRIOR APPLICATION NUMBER: 60/311,732
PRIOR APPLICATION NUMBER: 60/311,732
PRIOR APPLICATION NUMBER: 60/325,102
PRIOR FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 60/325,102
PRIOR APPLICATION NUMBER: 60/325,102
PRIOR APPLICATION NUMBER: 60/325,102
PRIOR APPLICATION NUMBER: 60/325,02
PRIOR APPLICATION NU
                                                                                                                                                                                                                                                                                                                                             ; LENGTH: 1454
; TYPE: DNA
; ORGANISM: Homo s
US-10-097-340-166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-10-097-340-166
                                                                                                                                                                                                                              Query Match
Best Local Sim
Matches 1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: John MONAHAN
APPLICANT: Manjula GANI
APPLICANT: Sebastian H
                                                                                                                                                                                                                                                            Similarity
                                 GGGGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCCCGCCGCCTCTGGC
                                                                                                                                             Sebastian HOERSCH
Shubhangi KAMATKAR
Steve G. KOVATS
Rachel E. MEYERS
Michael MORRISEY
Peter CLANDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTTAGACATGTTGTGAGGAGACTATGATATAACATGTGTATTGTAAATCTTCATGTGATT
GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCCCCTCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xumei ZHAO
Karen GLATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gordon B. MILLS
Robert C. BAST,
Karen LU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Manjula GANNAVARAPU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ami SEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rosemarie SCHMANDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peter VEIBY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/10097340
b. US20030087250A1
                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                        100.0%; Score 1454;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĸ
                                                                                                                                                                                                                                                                                    딺
                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                                                                           0
                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                           0,
120
                                                      120
                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                           0
```

```
Ş
                                                                                                                 1021
                                                                                                                                             1021
                                                                                                                                                                        961
                                                                                                                                                                                                      961
                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                 GICTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                      CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                               TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                  CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                      CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                 CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                 GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                          ATATGTGCTGGACTGGACCGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                            ATATGTGCTGGACTGGACCGGGGCCAGGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGGCACCACGGCCGGCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCCGGGGCCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGGCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                 TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                          1200
                                                                                  1140
                                                                                                                                                                        1020
1200
                                                       1140
                                                                                                                1080
                                                                                                                                           1080
                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
```

뮍 Ş

Ś 뮹 5 Ś

밁 Ş

밁

8

Ş 밁 Ş 용 Ś 밁 S 밁

Ś

엉 8 용 밁

Ş

밁 Ş 8 В Ş В

g

8

361

```
GENERAL INFORMATION:
APPLICANT: WANG, YIXIN
APPLICANT: WANG, YIXIN
TITLE OF INVENTION: EXPRESSION PROFILES AND METHODS OF
FILE REFERENCE: 15117.0012
CURRENT APPLICATION NUMBER: US/10/101,510
CURRENT FILING DATE: 2002-03-20
PRIOR APPLICATION NUMBER: 60/276,947
PRIOR APPLICATION NUMBER: 60/276,947
PRIOR FILING DATE: 2001-03-20
NUMBER OF SEQ ID MOS: 805
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO. 78
                                                                                                                                                                                                                                                                                                                                                                                : LENGTH: 1457

: TYPE: DNA

; ORGANISM: Homo sapiens

US-10-101-510-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
US-10-101-510-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
Ş
                   밁
                                             S
                                                                           밁
                                                                                                S
                                                                                                                           밁
                                                                                                                                                   Ş
                                                                                                                                                                              밁
                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮻
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1453; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 78, Application US/10101510 Publication No. US20030148295A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                   301
  361
                           301
                                                                            241
                                                                                                    241
                                                                                                                             181
                                                                                                                                                       181
                                                                                                                                                                              121
                                                                                                                                                                                                        121
                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                              GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCCACCTCTCCGCCGCCCTCTGGC
                                         GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                            GCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                             GCGCTGCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                            GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCCGAAGCCTATGGCGCCCCCGTGCGCG
                                                                                                                                                                              GCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                           GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                            CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                AAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                            99.2%;
                                                                                                                                                                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                                                Score 1442; DI
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                         12;
                                                                                                                                                                                                                                                                                                                                .
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ្អ
                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                ۲.
                                                                                                                                                       240
                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1260
                                                                            300
                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                180
                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                60
```

Ş В

```
1380
                                                                     1381
                                                                                                        1320
                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                              1200
                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                 CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA 1260
                                                                                                                                                                                                                                                                                                                                        TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCTGTGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATATGTGCTGGACTGGACCGGGGCCAGAGACCCTTGCCAGAGGGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGCACCACGGCCGGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCGCGTC
дададададада 1454
                                                       GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                     CAPAGGITTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                       CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                        CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAACTCTCCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grenerakeakecereeakageareereregigggrentakeeergregerereee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGGCACCACGGCCCCCGAGAGTGAAGTACAACAAGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGCCCTGCAGCTTCCCTACCGCTGCTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                     GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                              AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                              CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                   1439
                                                                     1440
                                                                                                                                        1380
                                                                                                                                                                           1319
                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                              1259
                                                                                                                                                                                                                                                                                                                     1199
                                                                                                                                                                                                                                                                                                                                                                                       1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                        1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
```

밁 Ś 엉 Ş

Q В S 용 Ş 8 S g Ş 용 5

601

681

540 621

600

480

501 360 441 300

420

Ş

В

용 Ş ß Ś Ś В Š дb S 윉

8

Ş

B Ş 뭥

```
APELICANI: PRANTALO, GENERAL
APPLICANI: SUDARSANAM, SUCHA
FITLE OF INVENTION: NOVEL PROTEASES
FILE REFERENCE: 038602/1214
CURRENT APPLICATION NUMBER: US/09/888,615
CURRENT FILING DATE: 2001-06-26
PRIOR APPLICATION NUMBER: 60/214,047
PRIOR APPLICATION NUMBER: 60/214,047
PRIOR THING DATE: 2000-06-26
NUMBER OF SEQ ID NOS: 150
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 28
LENGTH: 831
TYPE: DNA
ORGANISN: Homo sapiens
US-09-888-615-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-09-888-615-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                             δ
                                                                        맑
                                                                                                   δ
                                                                                                                                              뭐
                                                                                                                                                                       Ş
                                                                                                                                                                                                                    皮
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멎
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 28, Application US/09888615
Patent No. US20020064856A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 830; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 57.0%; Score 829.4; DB 9; Best Local Similarity 99.9%; Pred. No. 4.6e-234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: PLOWMAN, GREGORY
APPLICANT: WHYTE, DAVID
APPLICANT: CASMEPEEL, SEAN
APPLICANT: CHARYDCZAK, GLEN
APPLICANT: CHARYDCZAK, GREARD
APPLICANT: MANNING, GERARD
                                                                                                                                                                                                                                                                                                                               442
                                                                                                                                                                                                                                                                                                                                                                                                          382
                                                                                                           622
                                                                                                                                              481
                                                                                                                                                                                   562
                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                       502
                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              202
                                                                        541
                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82 ATGAGAGCTCCGCACCTCCACCTCTCCGCCCCCTCTGGCGCCCCGGGCTCTGGCGAAGCTG 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \vdash
TGTGAGGTCTTCTACCCTGGGGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGG 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTCGCTCTTCAACGGCCTCTCCGTTCCACTGCGCGGGGTGTCCTGGTGGACCAGAGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CIGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCGGCTGCTCCCCCAAAACGAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCGGCGCTGCTCCCCCAAAACGAC
                                                                                                                                                                                                                                                                                                                    TACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTG
                                                                                                                                                                                                                                                                                                                                                                                          CTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCTCTTGTTCCATCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCTGACGGCCGCCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCAC 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGAGAGETECGCACETECACETECCGCCGCCTCTGGCGCCCCGGGCTCTGGCGAAGETG
                                                                                           AGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACCTATCCTGAGCCCTAAAGAG
                                                                                                                                                CTRANGCTGGCCGGTAGTGCCGGGGGCCCGCGGGTCCGGGCCCTGCAGCTTCCCTAC
                                                                                                                                                                                                                                                         CTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGCCCCTGCAGCTTCCCTAC 561
                                                                                                                                                                                                                                                                                            TACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTG
                                                                                                                                                                                                                                                                                                                                                                    CTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCTGTTGTCCATCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGCTGACGGCGCGCACTGCGGAAACAAGCCACTGTGGGGCTCGAGTAGGGGATGACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG
                                                                          AGAGTGAAGTACAAGAGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCCTAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

Gaps

60

201

321

180

240

```
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                  멍
                                                                                                        Ş
                                                                                                                                                        g
                                                                                                                                                                                            Š
                                                                                                                                                                                                                                              멎
                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                            હ
                                                                                                                                                                                                                                                                                                                                                                                                                         D
                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-964-824A-311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-964-824A-311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 311, Application US/09964824A Patent No. US20020102531A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn version 3.0
SEQ ID NO 311
LENGTH: 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT HORITION: Cancer Gene Determination and Therapeutic Screening Using Signatu TITLE OF INVENTION: Catcer Gene Determination and Therapeutic Screening Using Signatu TITLE OF INVENTION: Sets

FILE REFERENCE: 680290-73

CURRENT APPLICATION NUMBER: US/09/964,824A

CURRENT FILING DATE: 2001-09-27

PRIOR APPLICATION NUMBER: US/60/236,033

PRIOR APPLICATION NUMBER: US/60/236,032

PRIOR APPLICATION NUMBER: US/60/236,032

PRIOR APPLICATION NUMBER: US/60/236,032

PRIOR FILING DATE: 2000-09-28

PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 35.0%; Local Similarity 99.4%;
                       1132
                                                                                                                                                                                                   1012
                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          531; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661 GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           742
                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    712 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ب</u>
AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA
                                                                                                                                                                                                                                                                                                                                                                       ARAGICATROGCTCORACTGRICCORGRIGCTROCCTCCRGCTGRICCRGRIGTTRIGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGA 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACC 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAA 801
                                                                                            CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC 1071
                                                                                                                                                                                                                                                                          CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAA 1011
                                                                                                                                                                                                                                                                                                                                      AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCCCCCTGGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGA 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCCTGTCCAGCATCCAGCTGTCTACACC
                                                                CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                      CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 508.4; DB 10; Length 532; Pred. No. 1.8e-139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                              299
                                                                                                                                                                                                                                                                                                                                                                              951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                419
                                                                                                                                                      359
                                                                                                                                                                                                                                                                                                                                   239
                                                                                                                                                                                                                                                                                                                                                                                                                         179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  771
```

```
GENERAL INFORMATION:

APPLICANT: Aglate, Paul A.

APPLICANT: Jones, Robert

APPLICANT: Harlocker, Susan L.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY

TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.497

CURRENT APPLICATION NUMBER: U5/09/867,701

CURRENT APPLICATION NUMBER: 2001-05-29

NUMBER OF SEQ ID NOS: 10912

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 5534

LENGTH: 532

TYPE: DNA

ORGANISM: Homo sapien

US-09-867-701-5534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                     Ś
                                                                                밁
                                                                                                                   Ś
                                                                                                                                                             В
                                                                                                                                                                                                S
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                             묽
                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-867-701-5534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 35.0%;
Best Local Similarity 99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 5534, Application Patent No. US20020132237A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                      1132
                                                                                                                                                                                                                                                                                   1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1192 GAGCAGTTACTOGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                       1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480 GAGCAGTTACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTG 532
                                                                                420
                                                                                                                                                             360
                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                   892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              712 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420 AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 479
  480
                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  832 GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               772 GGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                           180 AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                     GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                       CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
GAGCAGTTACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTG
                                                                                                                      AAGTGGTGGCAAAGGTTTATTCCAGAGAGAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 1191
                                                                                                                                                               CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                         CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                              CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                   CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCCCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                             CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCCAGTCGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/09867701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 508.4; DB 10; Length 532; Pred. No. 1.8e-139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                               419
                                                                                                                                                                                                       1131
                                                                                                                                                                                                                                                                                     1071
                                                                                                                                                                                                                                                                                                                               299
                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                   479
                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   771
```

US-09-954-531-611 ; Sequence 611, Application US/09954531 ; Patent No. US20020165180A1

RESULT 10

```
RESULT 11
US-09-954-531-1014
; Sequence 1014, Application US/09954531
; Patent No. US20020165180A1
; GENERAL INFORMATION:
; APPLICANT: Weaver, Zoe
; TITLE OF INVENTION: Process for Ident
                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엉

/ ORGANISM: Homo sapiens
US-09-954-531-611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOPTWARE: PatentIn version 3.0 SEQ ID NO 611 LENGTH: 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Weaver, Zoe
TITLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using Canc
TITLE OF INVENTION: Gene Sets
FILE REFERENCE: 689290-77
CURRENT APPLICATION NUMBER: US/09/954,531
CURRENT FILING DATE: 2002-05-02
PRIOR APPLICATION NUMBER: US/60/23,133
PRIOR FILING DATE: 2000-09-18
PRIOR FILING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: US/60/234,009
PRIOR APPLICATION NUMBER: US/60/234,034
PRIOR APPLICATION NUMBER: US/60/234,509
PRIOR FILING DATE: 2000-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US/60/234,567
PRIOR FILING DATE: 2000-09-22
NUMBER OF SEQ ID NOS: 1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                           1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1072
                                                                                                                                                                                                                                                                                                                                                                       1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1012
                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   712 AACAACATGATATGTGCCTGGACTGGACCGGGGCCCAGGGACCCTTGCCCAGAGTGACTCTGGA 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                   AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCCCCTGGTCTGTGACGACACCCTCCAAGGCATCCTCTCGTGGGGGTGTTTACCCCTGT 831
                                                                                                                                                                                                                                                       GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCCCCAGTCGGCTGAA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCCCCTGGTCTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35.0%;
              for Identifying Anti-Cancer Therapeutic Agents Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 508.4; DB 10;
Pred. No. 1.8e-139;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1131
                                                                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                 Cand
```

RESULT 12 US-09-867-701-5635/c

Sequence 5635, Application US/09867701 Patent No. US20020132237A1 GENERAL INFORMATION:

APPLICANT: Aglate, Paul A.
APPLICANT: Jones, Robert
APPLICANT: Jones, Robert
APPLICANT: Harlocker, Susan L.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER

```
CURRENT APPLICATION NUMBER: US/09/954,531
CURRENT FILING DATE: 2002-05-02
PRIOR APPLICATION NUMBER: US/60/233,133
PRIOR FILING DATE: 2000-09-18
PRIOR APPLICATION NUMBER: US/60/234,009
PRIOR APPLICATION NUMBER: US/60/234,009
PRIOR FILING DATE: 2000-09-20
PRIOR PRILING DATE: 2000-09-20
PRIOR PRILING DATE: 2000-09-20
PRIOR FILING DATE: 2000-09-20
PRIOR FILING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-954-531-1014
                                               Ś
                                                                                                      &
                                                                                                                                                        Ş
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                뭉
                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 689290-77
                                                 1192
                                                                                                                                                           1132
                                                                                                                                                                                                                                                                           1072
                                                                                                                                                                                                                                                                                                                                                                                        1012
480
                                                                                                         420
                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          712 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۳,
و
                          GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT 179
                                                                                                                                          AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 1191
                                                                                                                                                                                                                                                                                                                                                                                        CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCCCTGGTCTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
GAGCAGTTACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTG
                                                                                                         AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA
                                                                                                                                                                                                                   CTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                     CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG 1131
                                                                                                                                                                                                                                                                                                                                   CTCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCCAGTCGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 508.4; DB 10
Pred. No. 1.8e-139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                      419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                359
```

```
Sequence 5352, Application US/09867701

Patent No. US20020132237A1

GENERAL INFORMATION:

APPLICANT: Aglace, Paul A.

APPLICANT: Jones, Robert

APPLICANT: Harlocker, Susan L.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY

TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.497

CURRENT APPLICATION NUMBER: US/09/867,701

CURRENT FILING DATE: 2001-05-29

NUMBER OF SEQ ID NOS: 10912

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 5352

LENGTH: 449

TYPE: DNA

ORGARISM: Homo sapien
                                                                                                                                                                                                                                                                 RESULT 13
US-09-867-701-5352
                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: DNA; Homo sapien US-09-867-701-5635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 210121.497
CURRENT APPLICATION NUMBER: US/09/867,701
CURRENT FILING DATE: 2001-05-29
NUMBER OF SEQ ID NOS: 10912
SOFTWARE: FASCSEQ for Windows Version 4.0
SEQ ID NO 5635
LENGTH: 454
     Query Match
Best Local Similarity
Matches 448; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity Matches 449; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                         1342
                                                                                                                                                                                                                                                                                                                                                                                        1282
                                                                                                                                                                                                                                                                                                                                                                                                                                       1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1042 TGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACTTCACTTCCCCCACCTATCCCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           330
                                                                                                                                                                                                                                                                                                                                                                                                                150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    982 GTCCATCCTCTCCCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTC 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30
                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGTGGCAAAGGTTTATTCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTATGATATAACATGTGTATGTAAATCTT 1371
                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAG
                                                                                                                                                                                                                                                                                                                                                                                  TTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAG 1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCTCATCCCCCACCTATCCCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                              TCCTCTGCCACTCCCTGCTGTGTGACTTTGGGCAAGCCCAAGTGCCCTCTCTGAACCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ccaggaagccggrcarcacccagccrcrgagagcagrracrggggrcacccaaccrgacr
                                                                                                                                                                                                                                                                                                                                                                TTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAG
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30.8%;
               30.8%;
   Score 447.4;
Pred. No. 1.7e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 448.4; DB 10;
Pred. No. 8.6e-122;
0; Mismatches 1;
; DB 10;
1.7e-121;
1;
     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                         Length 449;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 454;
   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1101
                                                                                                                                                                                                                                                                                                                                                                                                              92
                                                                                                                                                                                                                                                                                                                                                                                                                                                             151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         331
  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
           Ş
                                    당
                                                     Š
                                                                                용
                                                                                                      Ś
                                                                                                                                밁
                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
```

```
US-09-867-701-2778/c

: Sequence 2778, Application

: Patent No. US20020132237A1

: GENERAL INFORMATION:
                                                                                                                                                               1170
                                                                                                                                                                                                                                   1110
                                                                                                                                                                                                                                                                                                       1050
                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                          990
                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGACGAGACCCTCCAAGGCATCCT
                                                                                                                           CCGGTCATCACCCAGCCTCTGAGAGCAGT
                                                                                                                                                   CCGGTCATCACCCAGCCTCTGAGAGCAGT 1198
                                                                                                                                                                                                                    TGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCCAGGAAG 1169
                                                                                                                                                                                                                                                                                         TCCACACCTCTAAACATCTCCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                             AGCTGATCCAGATGTTATGCTCCTGCTGCTGATCCAGATGCCCAGAGGGCTCCATCGTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAATACACGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAAACTGATCCAGATGCTACGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCGTGGGGTGTTTACCCCTGTGGCTTTGCCCAGCATCCAGCTGTCTACACCCAGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTG
                                                                                                                                                                                                                                                                                                                                         TCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCC
                                                                                                                                                                                                                                                                                                                                                             TCTTCCTCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCC
                                                                                                                                                                                                                                                                  TCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCC
                                      US/09867701
                                                                                                                             449
                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                      1109
                                                                                                                                                                                                                                                                                                                                                                          1049
                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              608
                                                                                                                                                                                                                                                                                                                                                                                                                                                989
```

```
APPLICANT: AGlate, Paul A.

APPLICANT: Jones, Robert

APPLICANT: Harlocker, Susan L.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY

TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.497

CURRENT APPLICATION NUMBER: US/09/867,701

CURRENT FILING DATE: 2001-05-29

NUMBER OF SEQ ID NOS: 10912

SOFTMARE: FASTSEQ FOR Windows Version 4.0

SEQ ID NO 2778

LENGTH: 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA; Homo sapien US-09-867-701-2778
                                                                                                                                                                                                                                                                                                                                                          Query Match 30.6%;
Best Local Similarity 99.4%;
Matches 46%; Conservative
                                                                                                      1094
                                                                                                                                                                              1034 CAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCTCACTCATTCCCCCACCT 1093
                                                                                                                                                         410
                                                                                                                                                                                                                                                            470
                                                                                                                                                                                                                                                                                       974 GCTCCATCGTCCATCCTCTCCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTT 1033
                                                                             ATCCCCATTCTCTGCCTGFACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTC 1153
                                                                                                                                                                                                                                                         GETECATEGTÉCATECTECTECECAGTEGGETGAACTETECECTTGTETECACTGTT
CAGAGAAGCCAGGAAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCA 1212
                                                                                                                                                   CAMACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCACCTCATTCCCCCACCT
                                                   atccccattctctgtgtgtactgaagctgaaatgcaggaagtggtggcaaaggtttattc
                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                       Score 445.4; DB 10;
Pred. No. 6.7e-121;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                          Ν
••
                                                                                                                                                                                                                                                                                                                                                       Gaps
```

411

231

291

351

Ş	유	용장	β δ	음 성	용정	B 5	8 8	3 W O	Contraction of the contraction o	70 HI	용정	음 정	දු ද	å 8
	jus	P	ц	щ				Query Match Best Local S Matches 450	EMERAL INFORMATION PROPRIES APPLICANT: Aglain APPLICANT: Har: Jon APPLICANT: Har: TITLE OF INVENTIFIE OF INVENTIFIE OF INVENTIFIE OF SEQ II: SOFTWARE: Fasts: SOFTWARE: SOFTWA	ULT 15 09-867-	سو	بر	ų	ų
342	282 93	152	162 212	102 272	332	982 392	452	al :	ONA A DINA A DIN	701 27	5 9 3 5 1	.334 111	274 171	230
ACTATGATATAACATGTGTATGTAAATCTTCA 1373	TITCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAG 1341	TCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTGTGAACCTCAG 1281	CCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACT 1221	TCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAG 1161 	TGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCAT 1101	GTCCATCCTCTCCTCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTTCAAACCTC 1041 	TACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATC 981		FRICTIC NO. USZUZZIAŁ GENERAL INFORMATION: APPLICANT: HAZIOCKE, Robert PRELICANT: HAZIOCKE, SUSAN L. TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.497 CURRENT APPLICATION NUMBER: US/09/867,701 CURRENT FILING DATE: 2001-05-29 NUMBER OF SEQ ID NOS 119912 SOFTWARE: FASTSEQ for Windows Version 4.0 SEQ ID NO 2781 LENGTH: 468 TYPE: DNA ORGANISM: Homo sapien	SSULT 15 3-09-667-701-2781/c Sequence 2781, Application US/09867701	TTAACACAGTGGGTGAGTFCTGACTAAAGGTTACCTGTTGTCGTGAAA 1443 	GTGAGGAGACTATGATATAACATGTGTAIGTAAATCTTCAT-GTGATTGTCATGTAAGGC 1392 	PACCICAGITICCICAICIGCAAAAIGGGAACAAIGACGIGCCIACCICITAGACAIGII 1333 	ACCTGACTICCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTG 1273

Db 33 ACTATGATATAACATGTGTATGTAAATCTTCA 2

Search completed: November 25, 2003, 09:06:16 Job time : 491 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM nucleic -
                                                                                                                                                           a
     0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
2:
        Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
     128
128
127.6
127.6
120.2
118.8
118.6
118.6
118.6
118.6
                                                                                                                                                                                                                                                                                                                                                               164
163.6
163.2
160.8
160.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1454
335.6
165.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               November 25, 2003, 04:55:43 ; Search time 99 Seconds
(without alignments)
6482.536 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0
100.0
100.0
100.0
110.0
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
111.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               569978 seqs, 220691566 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Issued_Patents_NA:*

| Comp_6/ptodata/2/ina/5A_COMB.seq:*
| Cgm2_6/ptodata/2/ina/5B_COMB.seq:*
| Cgm2_6/ptodata/2/ina/6A_COMB.seq:*
| Cgm2_6/ptodata/2/ina/6A_COMB.seq:*
| Cgm2_6/ptodata/2/ina/6B_COMB.seq:*
| Cgm2_6/ptodata/2/ina/backfiles1.seq:*
| Cgm2_6/ptodata/2/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-021-368-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length DB
     1454
11192
11192
11192
11014
1014
1052
11146
11052
11476
14776
14776
14776
14776
14776
14776
14776
14776
14776
14776
14776
  US-08-467-155A-2
US-08-628-198-2
US-09-201-038-2
US-09-201-038-2
US-09-328-111-672
US-08-944-483-7
US-08-944-483-7
US-08-946-642-10
US-08-9205-258-189
US-09-386-642-9
US-09-386-642-9
US-09-386-642-9
US-09-386-642-9
US-09-386-642-9
US-09-070-226-1
US-09-98-271A-19
US-09-98-271A-19
US-09-98-271A-19
US-09-98-271A-19
US-09-98-271A-19
US-09-98-271A-19
US-09-10-084-2
US-09-10-084-3
US-09-10-084-2
US-09-10-084-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1139956
                                                                                                                                                     Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 672, Appli
Sequence 672, Appli
Sequence 7, Appli
Sequence 2, Appli
Sequence 189, Appli
Sequence 10, Appli
Sequence 2, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                           Sequence
                                                                                                    Sequence
                                                                                                                                  Sequence
                                                                            Sequence
2 Appli
2 Appli
2 Appli
2 Appli
2 Appli
2 Appli
3 Appli
1 Appli
```

å 5	2 110	US -		۵
	Query Ma Best Loo Matches	8 FY Care Services		22250000000000000000000000000000000000
1 ACC 1 ACC	y Match Local Simi hes 1454;	ULT 1 08-467-155A-2 equence 2, Application US/084671 atent No. 5736377 GENERAL INFORMATION: NGS-1 POL TITLE OF INVENTION: NGS-1 POL TITLE OF INVENTION: NOLECULES NUMBER OF SEQUENCES: 11 CORRESPONDENCE ADDRESS: ADDRESSEE: Fish & Aichardso STREET: 225 Franklin Street CITY: Boston STATE: MA COUNTRY: USA ZIP: 02110-2804 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPACIBLE OPERATION SYSTEM: PC-DOS/MS SOFTWARE: Patentin Release CURRENT APPLICATION DATA: APPLICATION INFORMATION: APPLICATION UMBER: US/08/4 FILLING DATB: 06-UN-195 CLASSIFICATION: 435 CLASSIFICATION UMBER: 00 TELECOMMUNICATION INFORMATION: NAME: CLAYK, PAUL T. REGISTRATION UMBER: 30,162 REFERENCE/DOCKET NUMBER: 30,162 REFERENCE/DOCKET NUMBER: 00 TELEPAX: 200154 TELEPAX: 617/542-8906 TELEFAX: 20154 TYPB: NUCLECIA CACIG TYPB: NUCLECIA CACIG TYPB: NUCLECIA CACIG TRANDEDNESS: single MOLECULE TYPE: CDNA 08-467-155A-2		117 117 117 118 108.2 108.2 108.2 108.6 107.2 107.2 106.6 106.6 106.6
accagoggagaccacaggcagggagaggcacgtctgggtcccctccct	llarity Conservat	155A-2 2, Application US/08467155A 00. 5736377 LINFORMATION: LINFORMATION: CANT: Band, Vimla GOF INVENTION: NES-1 POLYPE FOR TIVENTION: STREET FOR THE POLYPE FOR TIVENTION: STREET FOR THE POLYPE FOR TIVENTION DATA: FOR THE POLYPE FOR TIVENTION: 435 ASSIFICATION NUMBER: US/08/467, LING DATE: 0-JUN-1995 ASSIFICATION: MASSIFICATION: 435 ASSIFICATION: 10-JUN-1995 ASSIFICATION: NUMBER: 30,162 FOR THE POLYPE		00000444460000000000000000000000000000
GACCAC GACCAC	100. 100. ative	Cation US/08467155A TION: IION: IION: INEX-1 POLYPE WITION: NES-1 POLYPE WITION: NOLECULES AN ENCES: 11 ADDRESS: 11 ADDRESS: 11 Franklin Street IION: FIDDPY disk Floppy disk Floppy disk Floppy disk FLOPS/MS-DC ANGENIA PC-DOS/MS-DC INFORMATION: PAUL T. INFORMATION: PAUL T. INFORMATION: 100 INFORMATION: 101 INFORMATION: 10		969 986 986 1504 1358 1358 1358 662 725 725 711 711 760 760
AGG	9 9	/08467 S-1 po LECULE 1 Stree Stree Gisk patibl -DoS/M -DOS/M 1995 1995 1995 1995 1995 1995 1995 199		છા છા છા વ્યવસ્થાન આપા પા પ
ΩΩ (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	0	FOLYPE DLES AN DLES AN P.eet ble ble ble 5/MS-DO 150 #1.		0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50
67 67 78 78 78	Mis	67155A 67155A DOLYDEPTIDES, LES AND METHOD dson P.C. eet ble ble se #1.0, Versi se #1.0, Versi se #1.0, Versi o0398/100001 ON:	al i gnments	09-150 09-150 09-150 09-150 09-28 09-28 09-70 09-70 09-10 08-76 08-76 08-76 08-76
646 	No mat	TDE: METT	ME	66572 66
GCAC	Score 1454; Pred. No. 0; Mismatches	DES, DNA ETHODS Version A A	STV	39-502-600-30 38-557-146-1 39-154-344-1 39-216-316-6 88-983-075D-6 98-983-075D-6 99-702-705-10 99-736-45-1 99-736-45-1 99-652-028-1 99-10-264-2 99-10-264-2 99-10-264-2 99-10-264-3 99-10-
9-61 7-61 7-61	88			US-09-502-600-30 US-08-557-146-1 US-09-154-344-1 US-09-280-116-1 US-09-280-105-0 US-08-983-075D-6 US-08-983-075D-6 US-09-702-705-109 US-09-717-801-12 US-09-551-028-12 US-09-551-028-12 US-09-551-028-13 US-08-622-046B-13 US-08-638-639A-9 US-08-767-820A-9 US-08-767-820A-9
1000 1000 1000	1;	#1.30		
	In Le			
2 - 2 - 2 - 2 - 2 - 2	Length Indels	RELATED		<i></i>
CT C	14	ä		ອອດ ການຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กาນຄອງ กางควา กางค กางค กางค กางค กางค กางค กางค กาง
C	54; 0;	•		Sequence
CCI 	Ga			997772233
	Gaps	•		30, Appli 1, Appli 1, Appli 1, Appli 6, Appli 8, Appli 109, Appli 109, Appli 12, Appli 12, Appli 2, Appli 2, Appli 2, Appli 7, Appli 7, Appli 9, Appli 9, Appli
60	0			\$
	••			

```
1141
                                                              1081
                                                                                            1021
                                                                                                                           1021
                                                                                                                                                        961
                                                                                                                                                                                   961
                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
CARAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA 1200
                           CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                    CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCAGTCGGCTGAACTCTCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                 GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                              ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                         TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCT 1080
                                                                                                                                                                                                            cecrecaacrearccagarecracecrecaecrearccagarerrarecrecrecreare
                                                                                                                                                                                                                                CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                      CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                   CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                              ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGGCACCACGGCCGCCGGAGAGTGAACTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGCCCTGCAGCTTCCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCGAGTAGGGGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGGCGGACGACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGCTTCCACTGCGCGGGT
                                                                                                                                                   cadardeceasadderecaredrecarecretecedecagreggergaacreteceer
                                                                                                                                                                                                                                                                                                                                   GTOTGTGACGAGACCOTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTATECTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGGCACCACGCCCCCGGAGAGTGAAGTACAACGAGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCGGGCTCTGGCGAAGCTGCTGCCTGCTGATGGCGCAACTCTGGGCCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCGCCTCTCGCCCCTCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCCTGGTGGÅCCÅGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGGCTCGCAGCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCCGCAACTCTGGGCCGCAGAGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCTCTGGC
                                                         1140
                                                                                        1080
                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                     900
                           1140
                                                                                                                                                                                                            960
                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
```

Ş В

0,

Ç

0,

Gaps

0

Ś B Ś 몽

Ş 용 Š

맑 Ś 밁 Ś Ś 밁 Ś 뭐 Š 밁 Š 유 Ś 밁 S 밁 Ş 밁 S 밁 Ş В δ 밁 Š 밁 Š

밁

```
US-08-628-198-2
US-08-628-198-2
; Sequence 2, Application U;
; Patent No. 5843694
; GENERAL INFORMATION:
; APPLICANT: Band, Viml
                                                                                  TELLEFAX: 61/,
TELEFAX: 61/,
TELEX: 200154
INFORMATION FOR SEQ ID NO: 2;
SEQUENCE CHARACTERISTICS:
LENGTH: 1454 base pairs
TYDE: nucleic acid
                                                            US-08-628-198-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           웑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1454; Conservative 0
                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
COUNTRY: USA
COUNTRY: USA
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve.
CURRENT APPLICATION DATA:
APPLICATION UMMBER: US/08/628,198
FILING DATE:
                                                                                                                                                                                     APPLICATION NUMBER: 08/467,15
FILSING DATE: 06-UNI-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECOMMUNICATION INFORMATION:
TELEPRONE: 617/542-8906
TELEPRAX: 617/542-8906
                                                                      STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Band, Vimla
TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA,
TITLE OF INVENTION: MOLECULES AND METHODS
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Ribbardson P.C.
                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Fish & KICHALUSU.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGGTGTGTGAGCTTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  АААААААААААА 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGGGTCACCCGACCTGCCTGTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US/08628198
                                                                                                                                                                                                                                                                                                                   08/467,155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1454
                                                                                                                                                                                                                                00398/100002
 Score 1454;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                         Version
                            gg
                                                                                                                                                                                                                                                                                                                                                                                         #1.30
                           2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND
                           Length
                            1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
```

B & B &

S

1140	.081 CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATG	
1080	1021 TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT	ير بېر
1020	961 CAGATGCCCAGAGGCTCCATCGTCCATCCTCCCCCAGTCGGCTGAACTCTCCCCT	
960 960	901 CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC	
900	841 CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA	
840 840	781 GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCC	
780 780	721 ATATGTGCTGGACTGGACCGGGGCCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG	
720 720	661 ACTATCCTGAGCCCTAAAGAGTCTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG	
660 660	601 TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAAGGGGCTGACCTGCTCCAGCATC	
600	541 CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC	
540 540	481 GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC	
480 480	421 GGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCATCCTGCCAAGGCGAACG	
420 420	61 GCTCGAGTA	
360 360	301 GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG	
300		
240	181 GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG	
180		
120 120	61 GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCGGCCGCCTCTGGC	
60	1 ACCAGCGGCAGACCACAGGCAGGCAGGCACGTCTGGGTCCCCTCCCT	

S

B

8

 8 8 8 8 8 8 8

S B

8 B

성 음 성

8 8 8 8 8 8 8

```
WOLECULE TYPE: US-09-201-038-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-09-201-038-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/09201038
Patent NO. 6153387
GENERAL INFORMATION:
APPLICANT: Band, Vimla
TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA, AND RELATED
TITLE OF INVENTION: MOLECULES AND METHODS
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                   TELEX: 200154
INFORMATION FOR SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
LENGTH: 1454 base pairs
                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: CLAFK, Paul T.
REGISTRATION UNWBER: 30,162
REFERENCE/DOCKET NUMBER: 00399
TELECOMMUNICATION INFORMATION:
TELEPIONE: 617/542-8906
TELEFAX: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                              STATE: MA
COUNTRY: USA
COUNTRY: USA
ZIP: 02110-2804
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: DEM PC compartible
COMPUTER: PC COMPUTER: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                   TYPE: nucleic acid
STRANDEDNESS: sing
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/628,198 FILING DATE: CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Fish & Richardson P.C. STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441 AAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141 CAPAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441 AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141 CAPAGGTTTATTCCAGAGAAGCCAGGAAGCCGTCATCACCCAGCCTCTGAGAGCAGTTA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTTAGACATGTTGTGAGGAGACTATGATATAACATGTGTATGTGAAATCTTCATGTGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGIGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAAATGGGAACAATGACGTGCCTACC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGFGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                   SS: single
linear
                                                                                                                                                                                                                                                                                                                                                                                    US/09/201,038
                                                                                                                          2:
                                                                                                                                                                                                                      00398/100002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1260
```

Qy 961 CAGATGCCCAGAGGCTCCATCGTCCACTCTCCCCAGTCGGCTGAACTCTCCCCTTCCCCTTCCCCAGTCGGCTGAACTCTCCCCCTTCCCCAGTCGGCTGAACTCTCCCCCCTCCCCAGTCGGCTGAACTCTCCCCCCCC	OY 901 CGCTCCAACTGATCCAGATGCTACGCTCCAGATGCTGATCCAGATGTTATGCTCCTGCTGATC	OY 841 CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA	Qy 781 GICTGTGACGAGACCCTCCAAGGCATCCTCGTGGGGGGTGTTTACCCCTGTGGCTCTGC	Qy 721 ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTTGCCAGAGTGACTCTGGAGGCCCCCTG	OY 661 ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG	Qy 601 TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC	Qy 541 CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTTGCCAGGTTGCTGGGAGCTAGCCCTGTGCTCAGCCCGGAGACCAGGTTGCCAGGTTGCTGGAGCCAGGTTGCCAGGTTGCTGAGCCCGGAGACCAGGTTGCTGAGCCAGGTTGCTGAGCCCGGAGACCAGGTTGCTGGTGCTAGCCCAGGTGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTGAGCCAGGTTGCTAGCCAGGTTGCTGAGCCAGGTTGCTAGCAGGTTGCTAGCAGGTTAGCTAGC	Qy 481 GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGGCCCGCGTC	QY 421 CGCTCTGTTGTCCATCCCAAGTACCACCAGGCTCAGGCCCCATCCTGCCAAGGCGAACG	Qy 361 GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTACCTCCGCCGGACGACT	QY 301 GTCCTGGTQGACCAGAGTTGGGTGCTGACGCCGCGCACTGCGGAAACAAGCCACTGTGG	QY 241 CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT	QY 181 GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCGCGDb 181 GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAACCCATATGGCGCCCCTATGGCGCCCCTATGGCGCCCCGTGCGCG	QY 121 GCCCGGGCTCTGGCGAAGCTGCTGCTGATGGCGCAACTCTGGGCCGAGAGGCG	QY 61 GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGG	OY 1 ACCAGGGGAGACCACAGGCAGGGGAGAGGCACGTCTGGGTCCCCTCCCT	Query Match 100.0%; Score 1454; DB 3; Length 1454; Best Local Similarity 100.0%; Pred. No. 0; Matches 1454; Conservative 0; Mismatches 0; Indels 0; Gaps
1020 ; INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: 1020 ; ENGTH: 1454 base pairs TYPE: nucleic acid 1080 ; STRANDEDNESS: single	NUMBI INFORM 542-50	; CLASSIFICATION: 900 ; ATTORNEY, AGENT INFORMATION: 1 NAME: Clark, Paul T. 900 ; REGISTRATION NUMBER: 30,162	FILING DATE: 06-JUN-1995	780 ; CURRENT APPLICATION DATA: APPLICATION NUMBER: PCT/US96/07343 780 ; FILING DATE:	KEADABLE FORM: TYPE: Floppy disk ER: IBM PC compatible ING SYSTEM: PC-DOS/MS-DOS	660 ; STATE: MA 660 ; STATE: MA 660 ; COUNTRY: USA 660 ; CIP: 02110-2804	600 CORRESPONDENCE ADDRESS: ADDRESSE: Fish & Richardson P.C. STREET: 225 Franklin Street	540 ; APPLICANT: New England Medical Center Hospitals, Inc.; TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA, AND RELATED TITLE OF INVENTION: MOLECULES AND METHODS	480 RESULT 4 PCT-U596-07343-2 480 ; Sequence 2, Application PC/TUS9607343	420 (2) 1441 AAAAAAAAAAA 1454 420 (Db 1441 AAAAAAAAAAAA 1454	1381	300 CY 1321 TCTTAGACATGTTOTGAGGAGACTATGATATAACATGTGATATGTAAATCTTCATGTGATT 1380 [1261 AGTGCCCTCTGRAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC	1201 CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAGCCA	1141 CAAAGSTITATICCAGAGAAGCCGGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA	1081 CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG	

```
; TOPOLOGY: li
; MOLECULE TYPE:
PCT-US96-07343-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 1454; Best Local Similarity 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                     481
 961 CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCAGTCGGCTGAACTCTCCCCT 1020
                                901
                                                          106
                                                                                       841
                                                                                                                 841
                                                                                                                                                                         781
                                                                                                                                                                                                      721
                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                 109
                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                            GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                    TGGGGCACCACGGCCGGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCGCCGCCTCTGGC 120
                                                 CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                    CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                     ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                   ACTATCCTGAGCCCTAAAGAGIGTGAGGGCTTCTACCCTGGCGTGGTCACCAACAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                               CGGGCCCTGCAGCTTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTCGCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCTCTGTTGTCCATGCCAAGTACCACCAGGGCTCAGGGCCCCATCCTGCCAAGGGGGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCGGCTCGCAGCCCTGGCAGGTCTCCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGGCG
                                                                                                                                            GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                         ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTTGGAGGCCCCCTG
                                                                                                                                                                                                                                                             ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                            CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTCAACGGCCTCTCGCTTCCACTGCGCGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGGCACCACGGCCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                             960
                                                        960
                                                                                    900
                                                                                                                900
                                                                                                                                            840
                                                                                                                                                                                                     780
                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-328-111-672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           仔
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
```

용

Ş

Ş 멍 Ś 밁 Ş 밁

8

Ś

Ś

용

Ş 뭐 Ś 용 S

д

Ş 용 Ş

용

Ş

Š 닭 8 皮 S 皮 Ś 닭 Š

몽

```
Sequence 672, Application US/09328111

Pattent No. 6262333

GENERAL INFORMATION:

APPLICANT: Endege, Wilson O.

APPLICANT: Steinmann, Kathleen E.

APPLICANT: Steinmann, Kathleen E.

APPLICANT: Bushmell, Steven E.

APPLICANT: Bushmell, Steven E.

APPLICANT: Catroll III, Eddie

APPLICANT: Lewis, Marcia E.

APPLICANT: Lewis, Marcia E.

APPLICANT: Monahan, John E.

APPLICANT: MONEL HUMAN GENES AND GENE EXPRESSION

TITLE OF INVENTION: NOVEL HUMAN GENES AND GENE EXPRESSION

TITLE OF INVENTION: NOVEL HUMAN GENES AND GENE EXPRESSION

CURRENT APPLICATION NUMBER: US/09/328,111

CURRENT APPLICATION NUMBER: US/09/328,111

CURRENT APPLICATION NUMBER: US/09/328,111

CURRENT APPLICATION NUMBER: US/09/328,111

CURRENT FILING DATE: 1998-06-10

NUMBER OF SEQ ID NOS: 850

SOFTMARS: FRSATSEQ for Windows Version 3.0

SEQ ID NO 672

LENGTH: 377

TYPE: DNA
                                                                              ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(377)
OTHER INFORMATION: n = A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021 TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961 CAGATGCCCAGAGGCTCCATCCTCCTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATGTAAGGCTTAACACAGTGGGTGGTGATGATCTGACTAAAGGTTACCTGTTGTCGTG 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCAFGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
23.1%;
                                                                                    ő
Score 335.6;
                                                                                    G
DB 3;
Length 377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
```

```
GENERAL INFORMATION:
APPLICANT: COHENTS, TRACEY L.
APPLICANT: FRIEDMAN, PAULA N.
APPLICANT: GRANADOS, EDWARD N.
APPLICANT: KLASS, MICHAEL R.
APPLICANT: KLASS, MICHAEL R.
APPLICANT: STEWART, KENT D.
APPLICANT: STEWART, KENT D.
APPLICANT: STEWART, KENT D.
APPLICANT: STEWART, KENT D.
APPLICANT: STEWART, MOVEL SERIN
TITLE OF INVENTION: AND METHODS
TITLE OF INVENTION: OF THE PROS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 7, Applic
Patent No. 6232456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 338; Conserv
                  INFORMATION FOR SEQ ID NO:
                                                                                     ATTORNEY AGENT INFORMATION:
NAME: Becker, Cheryl L.
REGISTRATION NUMBER: 35,441
REFERENCE/DOCKET NUMBER: 6183
TELECOMMUNICATION INFORMATION:
TELEPHONE: 847/935-1729
                                                                                                                                                                                                                                                            APPLICATION NUMBER: UI
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 60064-3500
ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASESEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 100 Abbott
CITY: Abbott Park
STATE: IL
COUNTRY: USA
                                                                                                                                                                                                                                          FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1113 ACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATA 1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/08944483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTGAACCTCAGTTTCCTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTCCTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATCACCCAGCCTCTGAGAGCAGTTÁCTGGGGTCACCCAACCTGACTTCCTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: Abbott Laboratories
                                                                   847/938-2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COLPITTS, TRACEY L. FRIEDMAN, PAULA N. GRANADOS, EDWARD N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOVEL SERINE PROTEASE REAGENTS
AND METHODS USEFUL FOR DETECTIN
OF THE PROSTATE
76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98.8%;
                                                                                                                                                                                                                                                                                                                                                              US/08/944,483
                                                                                                                                        6183.US.01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 1.4e-77;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FOR DETECTING AND TREATING DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                         US-08-944-483-8
                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-944-483-7
                                                                                                                                                                                                                   Sequence 8, Application US/08944483
Patent No. 6232456
                                                                                                                                             GENERAL INFORMATION:
APPLICANT: COLEN,
APPLICANT: COLPIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 11.4%;
Best Local Similarity 55.1%;
Matches 370; Conservative
     APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 1166 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                           822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          222 CTATGGCGCCCGTGCGCGCGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCT 283
                                                                                                                                                                                                                                                                                                                                                                         GGACTGGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                        GTCCTGGATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGÁT CCGTGTGCGATCACCCGAAAGCCCTGGTGTCTACACGAAAGTCTGCAAATATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGTGACTCCGGGGGCCCTCTGGTCTGTAACCAGTCTCTTCAAGGCATTATCTCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAACATCACAGACACCATGGTGTGTGCCAGCGTGCAGGAAGGGGGCAAGGACTCCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ĊTTĠCGATĠĊĠĊĊAAĊĀTĊĀĊCĀTĊĀTTGAGĊACCĀGAĀĠŢĠŢĠĀĠAĀĊGCĊŢĀĊĊĊĊĠĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGCTCCGCCGGACGACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCAAGCCCCGCTACATAGTTCACCTGGGGCAGCACCACCTC-----CAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGGCTACTCTGTGGGGCGACGCTCATCGCCCCAGATGGCTCCTGACAGCAGCCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAÁGGGGTTČGAĞTĞENAĞECTCAĞTÉCEÂĞEÇETĞĞEAĞĞEAĞECETGTTERAĞAARAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGACCTGCTCCAGCATCACCTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ссветессвестестестессвессвессвессвессвения подпасыванием по
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCATCACCTGGGCTGTGCGACCCCTCACCCTCTCCTCACGCTGTGTCACTGCTGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGCCGGGGCCCGGGGCCCTGCAGCTTCCCTACCGGTGTGTGCTCAGCCCGGAGA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCCTCCCCAACAAGACCACCGCAATGACATCATGCTGGTGAAGATGGCATCGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGA 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          creariceacracaearerecraciaeaccaeacracaearecracaeaccecaecaeacracae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGÁGGGCTGTGAGCAGACCCGGACAGCCACTGÁGTCCTTCCCCCACCCCGGCTTCAACAA
COHEN, MAURICE
COLPITTS, TRACEY L.
FRIEDMAN, FAULA N.
GRANADOS, EDWARD N.
KLASS, MICHAEL R.
RUSSELL, JOHN C.
STEMART, KENT D.
STROUPE, STEVEN D.
                                                                                                                                                                                                                                                                                                                                                                         833
                                                                                                                                                                                                                                                                                                                                                                                                                     . 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ب
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 165.8; DB 3; Pred. No. 1.8e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             289;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           230
```

US-08-944-483-7 RESULT 6

TELEFAX:

S В Ś

1413

· 유 Ş 밁 δ 밁 Ś 8 Ş

181

1293

1233

121

1173

بر

61

1353

241

밁

301

```
US-08-944-483-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: (
SEQUENCE CHARACTERISTICS:
LENGTH: 1192 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKette
COMPUTER: IBM Compatibl
OPERATING SYSTEM: DOS
COTTUMEN SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: 1
TITLE OF INVENTION: 1
TITLE OF INVENTION: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Becker, Cheryl L.
REGISTRATION NUMBER: 35,441
REGISTRATION NUMBER: 61
REFERENCE/DOCKET NUMBER: 61
TELECOMUNICATION INFORMATION:
TELEPHONE: 847/935-1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Becker, Cheryl L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 424
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories
STREET: 100 Abbott Park Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1192 base par
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 847/938-2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
             642
                                                                            582
                                                                                                             466
                                                                                                                                                                                                                                             346
                                                                                                                                                                                                                                                                                                                                            342
                                                                                                                                            522
                                                                                                                                                                             406
                                                                                                                                                                                                   462 CATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGT 521
                                                                                                                                                                                                                                                                            402
                                                                                                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                                                                                                                                                             175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     222 CTATGGCGCCCGTGCGCGCGCGCGCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                              282
     CCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGG 701
                                                                                                    CTCCATCACCTGGGCTGTGCGACCCCTCACCCTCTCCTCACGCTGTGTCACTGCTGGCAC 525
                                                                   CCAGTOCCAGGTTGCTGGCTGGGGCACCACGGCCCCCGGGAGAGTGAAGTACAACAAGGG 641
                                                                                                                              AGTGCCGGGGCCCCGCGCCCCTGCAGCTTCCCTACCGCTGCTCCTCAGCCCGGAGA 581
                                    GGAGGGCTGTGAGCAGÁCCCGGACAGCCACTGÁGTCCTTCCCCCACCCCGGCTTCAACAA 405
                                                                                                                                                                                                                                                                  ecaectroecceeaceaceacretrerrerrerecareceaacraceaceaceacece 461
                                                                                                                                                                                                                                                                                                    CCTCAAGCCCCGCTACATAGTTCACCTGGGGCAGCACCAACCTC-----CAGAAGGA 345
                                                                                                                                                                                                                                                                                                                                                                    GCGGCTACTCTGTGGGGCGACGCTCATCGCCCCAGATGGCTCCTGACAGCAGCCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                     CÁGCCTCCCCÁACAAÁGACCACCGCAATGACATCATGCTGGTGAÁGATGGCATCGCCAGT
                                                                                                                                                                                                                                                                                                                                   CGGAAACAMGCCACTGTGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGA 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOVEL SERINE PROTEASE REAGENTS
AND METHODS USEFUL FOR DETECTING AND TREATING
OF THE PROSTATE
76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/08/944,483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 164; DB 3;
Pred. No. 5.2e-33;
0; Mismatches 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6183.US.01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches 290; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISEASES
                                                                                                                                                                      465
                                                                                                                                                                                                                                                                                                                                                                                                       341
                                                                                                                                                                                                                                                                                                                                                                    294
                                                                                                                                                                                                                                                                                                                                                                                                                                    234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭉
```

ঠ 밁 Ş 밁 S 밁

281

Ş

g Ş 밁 Ş

S ₽

```
US-09-025-059-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 2, Application
; Patent No. 6075136
; GENERAL INFORMATION:
APPLICANT: Tang, Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-025-059-2
                                 Query Match
Best Local Similarity
Matches 370; Conserv
                                                                                                                                                                                                                       TELEX:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                             IMMEDIATE SOURCE:
LIBRARY: LUNGTUT10
                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                           TELEPHONE: 650-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS: ADDRESSES: Incyte Pharmaceuticals,
STREET: 3174 Porter Dr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Tang, Y. Tom
APPLICANT: Corley, Neil C.
APPLICANT: Guegler, Karl J
                                                                                                               LIBRARY: LUNGTO
                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: sing
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TLE OF INVENTION: PROSTATE-ASSOCIATED SERINE PROTEASE
                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                              TELEPAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
222 CTATGGCGCCCCGTGCGCGCGCGCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             646 CAACATCACAGACACCATGGTGTGTGCCAGCGTGCAGGAAGGGGCCAAGGACTCCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGATCCGTGTGCGATCACCCGAAAGCCTGGTGTCTACACGAAAGTCTGCAAATATGT 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTTTACCCCTGTGGCCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGCGATGCGCCAACATCACCATCATTGAGCACCAGAAGTGTGAGAACGCCTACCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/09025059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACTGGATCCA 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GICCIGGATCAA 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGTGACTCCGGGGGCCCTCTGGTCTGTAACCAGTCTCTTCAAGGCATTATCTCCTGGGG
                                                                                                                                                                                                             1314 base pairs
                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                            650-845-4166
                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Diskette
                                                                                                                                                                             single
                                                  11.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/09/025,059
                                                                                                                                                                                                                                                                                                                                      36,749
                                   0;
                                             Score 164; DB 3;
Pred. No. 5.5e-33;
                                                                                                                                                                                                                                                                                                                         PF-0481
                                 Mismatches
                                                                                                                                                                                                                                                                                                                         S
                                                             Length 1314;
                               Indels
                               12;
                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               765
                               22
```

```
US-09-205-258-189; Sequence 189; Application; Patent No. 6525174
                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
               EARLIER
                                                                                                                                                                                                                        FILE REFERENCE:
CURRENT APPLICAT
CURRENT FILING D
                                                                                                                                                                                                                                                                 APPLICANT: Young et al.
TITLE OF INVENTION: 207 Human Secreted Proteins
                                                                                                  NT APPLICATION NUMBER: US/09/205,258
NT FILING DATE: 1998-12-04
ER APPLICATION NUMBER: PT/US98/11422
ER FILING DATE: 1998-06-04
ER APPLICATION NUMBER: 60/048,885
ER FILING DATE: 1997-06-06
ER APPLICATION NUMBER: 60/049,375
ER FILING DATE: 1997-06-06
ER APPLICATION NUMBER: 60/048,881
ER FILING DATE: 1997-06-06
ER APPLICATION NUMBER: 60/048,881
SR APPLICATION NUMBER: 60/048,880
ER FILING DATE: 1997-06-06
ER APPLICATION NUMBER: 60/048,896
ER FILING DATE: 1997-06-06
ER APPLICATION NUMBER: 60/049,020
ER FILING DATE: 1997-06-06
ER APPLICATION NUMBER: 60/048,876
                                                                                                                                                                                                                                                                                                                                                                                                                                   879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         823
                                                                                                                                                                                                                                                                                                                                                                                                     943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCTGGATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCCTGCCAAGGCGAACGGATGAGGACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gcggciacicitatiggggcgacgcicaicgccccagaigeciccigacagcagcccacig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTTTACCCCTGTGGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACATCACAGÁCACCATGGTGTGTGCCAGCGTGCAGGAAGGGGGGGAAGGACTCCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cerecroaccaacaacareararerec---regacreeacceeeeccaeeacccrrecca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGCCGGGGCCCCGCGTCCGGGCCCTGCTGCTCCCTACCCCTGTGCTCAGCCCCGGAGA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGGCTGTGAGCAGACCCGGACAGCCCACTGAGTCCTTCCCCCCACCCCGGCTTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCAAGCCCCGCTACATAGTTCACCTGGGGCAGCACACCTC-----CAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACTGGATCCA 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGATCCGTGTGCGATCACCCGAAAGCCTGGTGTCTACACGAAAGTCTGCAAATATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          criscoarscoccaacarcarcarcarroascaccasoaasisisasaacsccracccs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ссветессвесттестеестееесескоскосссоссовананительность самова
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCATCACCTGGGCTGTGCGACCCCTCACCCTCTCCTCACGCTGTGTCACTGCTGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCCTCCCCAACAAAGACCACCGCAATGACATCATGCTGGTGAAGATGGCCATCGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGCTCCGCCGGACGACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGA
                                                                                                                                                                                                                                                        PZ007P1
                                                                                                                                                                                                                                                                                                                                                                                                                                   . 890
                                                                                                                                                                                                                                                                                                                             US/09205258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       878
                                                                                                                                                                                                                                                                                                                                                                                                                                                              942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                351
```

```
; SEQ ID NO 189
LENGTH; 1292
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-205-258-189
                                                                                                                                                                                                                                                                                                                                                                           EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                           EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                          EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
                                                                              SOFTWARE: Patentin
                                                                                                                                                                                                                               EARLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                             EARLIER
                                                                                                                                                   EARLIER
                                                                                                                                                                 EARLIER
                                                                                                                                                                               EARLIER
                                                                                                                                                                                                               EARLIER
                                                                                                                                                                                                                                                                                EARLI
                                                                                                                                                                                                                                                                                                             EARLIER
                                                                                                                                                                                                                                                                                                                                EARLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ARLIER
                                                                                                                                                                                                                        R FILING DATE: 1997-06-06
RAPPLICATION NUMBER: 60/048,963
R FILING DATE: 1997-06-06
R APPLICATION NUMBER: 60/048,877
R FILING DATE: 1997-06-06
R APPLICATION NUMBER: 60/048,878
                                                                                                                                                                                                                                                                                                                        R APPLICATION NUMBER: 60/048,883
SR FILLING DATE: 1997-06-06
SR APPLICATION NUMBER: 60/048,897
SR FILING DATE: 1997-06-06
SR APPLICATION NUMBER: 60/048,898
SR FILING DATE: 1997-06-06
SR FILING DATE: 1997-06-06
SR FILING DATE: 1997-06-06
                                                                           R FILING DATE: 1998-07-30
OF SEQ ID NOS: 1227
RE: Patentin Ver. 2.0
                                                                                                                                                               AFILING DATE: 1997-00-00
APPLICATION NUMBER: 60/070,923
APPLICATION NUMBER: 60/070,923
TITING DATE: 1997-12-18
                                                                                                                                              APPLICATION NUMBER: 60/092,921
FILING DATE: 1998-07-15
                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,949
FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,974
FILING DATE: 1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/048,875
FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/049,374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,972
FILING DATE: 1997-06-06
                                                                                                                              APPLICATION NUMBER: 60/094,657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/048,916
FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/049,373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/048,970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/048,915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/048,901
FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/048,899
FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 1997-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/
FILING DATE: 1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/049,019
FILING DATE: 1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/048,894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/048,884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER: 60/048,900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER: 60/048,882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/048,971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/048,964
```

```
RESULT 10
US-09-205-258-247
"-~mlence 247, Ag
CURRENT APPLICATION NUMBER: US/09/205,258
CURRENT FILING DATE: 1998-12-04
EARLIER APPLICATION NUMBER: PCT/US98/11422
EARLIER FILING DATE: 1998-06-04
EARLIER FILING DATE: 1997-06-06
EARLIER APPLICATION NUMBER: 60/048,885
EARLIER FILING DATE: 1997-06-06
EARLIER FILING DATE: 1997-06-06
EARLIER FILING DATE: 1997-06-06
EARLIER FILING DATE: 1997-06-06
EARLIER APPLICATION NUMBER: 60/048,881
EARLIER APPLICATION NUMBER: 60/048,880
EARLIER APPLICATION NUMBER: 60/048,880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                           Patent No. 652517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                           APPLICANT: Young et al.
TITLE OF INVENTION: 207 Human Secreted Proteins
FILE REFERENCE: PZ007P1
                                                                                                                                                                                                                                                                                                                                                          INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        282 CTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GICCIGGAICAA 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACTGGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTTTACCCCTGTGGCTCTGCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTGACTCCGGGGGCCCTCTGGTCTGTAACCAGTCTCTTCAAGGCATTATCTCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ccreaccrecrecacearcacrarecreaeccraaaeaerereaeecrereree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCATCACCTGGGCTĠTGĊĠACĊĊĊTCACCĊTCAĊĠĊTĠTGTCACTGĊTĠGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGCCGGGGCCCCGGGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCCGGAGA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGGCTGTGAGCAGACCCGGACAGCCACTGAGTCCTTCCCCCACCCCGGCTTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGGCTACTCTGTGGGGCGACGCTCATCGCCCCCAGATGGCTCCTGACAGCAGCCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGGATCCGTGTGCGATCACCCGAAAGCCTGGTGTCTACACGAAAGTCTGCAAATATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAACATCACAGACACCATGGTGTGTGCCAGCGTGCAGGAAGGGGGCAAGGACTCCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTGCGATGCGCCAACATCACCATCATTGAGCACCAGAAGTGTGAGAACGCCTACCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCCTCCCCAACAAAGACCACCGCAATGACATCATGCTGGTGAAGATGGCATCGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ecaectrocecceeaceacrectrocarectrocarcecaaeraceaceaeecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCAAGCCCCGCTACATAGTTCACCTGGGGCAGCACAACCTC-----CAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGAAACAAGCCACTGTGGGGTCGAGTAGGGGATGATCACCTGCTTCTTCAGGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              crarescerecereceses escapes consequences escapes escap
                                                                                                                                                                                                                                                                                                                                                                                                  Application US/09205258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 163.6; DB 4; pred. No. 6.9e-33; 1; Mismatches 290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1292;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EARLIER
BARLIER
BARLIER
BARLIER
BARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARLIER
BARLIER
BARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SARLIER
EARLIER
EARLIER
BARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EARLIER
SARLIER
SARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SARLIER
EARLIER
                                                                                                                                                                                                                                                                                BARLIER
BARLIER
                                                                                                                                                                                                                                                                                                                               earlier
Earlier
                                                                                                                                                                                                                                                                                                                                                                                                                   BARLIER
BARLIER
BARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BARLIER
BARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARLIER
                                                                                                                                                              EARLIER
                                                                                                                                                                                                                                                            EARLIER
                                                                                                                                                                                       SARLIER
                                                                                                                                                                                                             BARLIER
                                                                                                                                                                                                                                 EARLIER
                                                                                                                                                                                                                                                                                                                                                                              BARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BARLIER
                                                                                                                                                                                                                                                                                                                                                                                                    SARLIER
```

EARLIER APPLICATION NUMBER: 60/092,921
EARLIER FILING DATE: 1998-07-15
EARLIER APPLICATION NUMBER: 60/094,657
EARLIER FILING DATE: 1998-07-30
NUMBER OF SEQ ID NOS: 1227
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 247 APPLICATION NUMBER: 60/048,971
APPLICATION NUMBER: 60/048,971
APPLICATION NUMBER: 60/048,964 APPLICATION NUMBER: 60/048,896 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/049,020 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,915 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/049,019 APPLICATION NUMBER: 60/048,900 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,901 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,892 FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,884
FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,894 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,895 APPLICATION NUMBER: 60/048,878 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/049,373 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,970 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,972 FILING DATE: 1997-06-06 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,893 APPLICATION NUMBER: 60/048,876 FILING DATE: 1997-12-18 APPLICATION NUMBER: 60/070,923 APPLICATION NUMBER: 60/048,883 FILING DATE: 1997-06-06 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,974 APPLICATION NUMBER: 60/048,949 APPLICATION NUMBER: 60/048,917 FILING DATE: 1997-06-06 FILING DATE: 1997-06-06 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/049,374 FILING DATE: 1997-06-06
APPLICATION NUMBER: 60/048,916
FILING DATE: 1997-06-06 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,899 APPLICATION NUMBER: 60/048,882 FILING DATE: 1997-06-06 FILING DATE: 1997-06-06 FILING DATE: APPLICATION NUMBER: 60/048,877 FILING DATE: APPLICATION NUMBER: 60/048,963 FILING DATE: APPLICATION NUMBER: 60/048,962 FILING DATE: APPLICATION NUMBER: 60/048,898 FILING DATE: APPLICATION NUMBER: 60/048,897 FILING DATE: APPLICATION NUMBER: 60/048,875 FILING DATE: 1997-06-06 1997-06-06 1997-06-06 1997-06-06 1997-06-06 1997-06-06 1997-06-06

```
Ś
                                                                                                                                           묽
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 368; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -09-205-258-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PEATURE:
NAME/KEY: SITE
NAME/KEY: (35)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: SITE
LOCATION: (37)
OTHER INFORMATION: n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: (35)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: SITE
LOCATION: (36)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: SITE
LOCATION: (20)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1146
TYPE: DNA
                                                                         879
                                                                                                                                                                                                                    819
                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582
                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                               759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  189 GCGGCTACTCTGTGGGGCGACGCTCATCGCCCCAGATGGCTCCTGACAGCAGCAGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222 CTATGGCGCCCGTGCGCGCGCGCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCT
GGACTGGATCCA 791
                                                                     GTCCTGGATCAA 890
                                                                                                                                   CCAGGATCCGTGTGCGATCACCCGGAAAGCCTGGTGTCTACACGAAAGTCTGCAAATATGT
                                                                                                                                                                                                 TGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACAT 878
                                                                                                                                                                                                                                                                              eserea en contra de la contra del l
                                                                                                                                                                                                                                                                                                                                            GAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGGTCACCAACATCATATGTGC---TGGACTGGACCGGGGGCCAGGACCCTTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTGSGATGCGCCAACATCACCATCATTGAGCACCAGAAGTGTGAGAACGCCTACCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCTGYCTCATTTCCGGCTGGGGCAGMACGTCCAGCCCCCAGTTACGCCTGCCTCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGTGCCACGTTGCTGGCCTGGGGCACCACGGCCGCCCGGGAGAGTGAAGTACAACAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCATCACCTGGGCTGTGCGACCCCTCACCCTCACGCTGTGTGTCACTGCTGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGIGCCGGGGCCCCGCGTCCGGGGCCCTGCAGCTTCCCCTACCGCTGTGCTCAGCCCCGGAGA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCCTGCCAAGGCGAACGGATGAGGACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ecaecroceceeaceaceacrorererereres are a respective en estados en entre estados estados
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGAAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCACCTGCTTCTTCAGGGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTCCCCAACAAGACCACCGCAATGACATCATGCTGGTGAAGATGGCATCGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGGCTGTGAGCAGACCCGGACAGCCACTGAGTCCTTCCCCCACCCGGCTTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCAAGCCCCGCTACATAGTTCACCTGGGGCAGCACAACCTC-----CAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         equals a,t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              equals a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a, t, g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 163.2; DB 4;
Pred. No. 8.3e-33;
2; Mismatches 290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                   779
                                                                                                                                                                                                                                                                              719
                                                                                                                                                                                                                                                                                                                                                    818
                                                                                                                                                                                                                                                                                                                                                                                                                         659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      248
```

```
APPLICANT: Darrow, Andrew
APPLICANT: Qi, Jenson
APPLICANT: Andrade-Gordon, Patricia
APPLICANT: Andrade-Gordon, Patricia
ITILE OF INVENTION: Zymogen Activation System
FILE REFERENCE: ORT-1028
CURRENT APPLICATION NUMBER: US/09/386,642
CURRENT FILING DATE: 1999-08-31
NUMBER OF SEQ ID NOS: 60
SOFTMARE: Patentin Ver. 2.0
SEQ ID NO 10
LENGTH: 1052
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
US-09-386-642-10
; Sequence 10, Applic
; Patent No. 6420157
                                                               δ
                                                                                                                     B
                                                                                                                                                                              S
                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-386-642-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 359; Conserv
                                                                                                                                                                                                                                                    669
                                                                                                                                                                                                                                                                                                                                                                      609
                                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 489
                                                                                                                           729
                                                                                                                                                                                    783
                                                                                                                                                                                                                                                                                                             726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     366 AGTAGGGGATGATCACCTGCTGCTTCTTCAGGGGGAGGAGCAGCTCGGCCGGACGACGACTGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          258 CATCGCCCCAGATGGCTCCTGACAGCAGCCCACTGCCTCAAGCCCCGGCTACATAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAATGACATCATGCTGGTGAAGATGGCATCGCCAGTCTCCATCACCTGGGCTGTGCGACC
AAAGCCTGGTGTCTACACGAAAGTCTGCAAATATGTGGACTGGATCCA 836
                                               GCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAA 890
                                                                                                                                                        CTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCTCTGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCAGCGTGCAGGAAGGGGCAAGGACTCCTGCCAGGGTGACTCCGGGGGCCCCTCTGGT
                                                                                                                                                                                                                                                                                 TGC---TGGACTGGACCGGGGCCAGGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGT
                                                                                                                                                                                                                                                                                                                                                             CATTGAGCACCAGAAGTGTGAGAACGCCTACCCCGGCAACATCACAGACACCATGGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                         CCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCACGTCCAGCCCCCAGTTACGCCTGCCTCACACCTTGCGATGCGCCAACATCACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCACCCTCTCACGCTGTGTCACTGCTGGCACCAGCTGCCTCATTTCCGGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGTGGGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           теттетссатсссавстассассаестсаесссатсстессавссавасса
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccircididecacacacter----cacaaggaggagggergrgagcagacciggac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chácchácchácháchachachachtair rada agus a cháchách chách a chá
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCACTGAGTCCTTCCCCCACCCCGGCTTCAACAACAGCCTCCCCAACAAGACCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09386642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11.1%;
ilarity 55.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description of Artificial Sequence: Fusion with homo sapien serine protease catalytic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 160.8; DB 4;
Pred. No. 3.4e-32;
0; Mismatches 277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                              842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            485
                                                                                                                     788
                                                                                                                                                                                                                                       728
                                                                                                                                                                                                                                                                                                                                                                668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
```

```
US-08-/>-
Sequence 2, Appill
Sequence 2, Appill
Selent No. 5840871
GENERAL INFORMATION:
APPILCANT; Hilman, Jennifer L.
APPILCANT; Goli, Surya K.
TITLE OF INVENTION: A NOVEL PROSTATE-ASSOCIATED
TITLE OF INVENTION: KALLIKREIN
NUMBER OF SEQUENCES: ALLIKREIN
CORRESPONDENCE ADDRESS:
ADDRESSE: Incyte Pharmaceuticals, Inc.
CTREET: 3174 Porter Drive
S
                                           及
                                                                                 Ś
                                                                                                                             ğ
                                                                                                                                                                   8
                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                    岁
                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-790-137-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-(
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 833 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM CONTROL OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/7
FILING DATE: Filed Herewith
  594 TGCTGGCTGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTC 653
                                                                                                                             347
                                                                                                                                                                                                                 287
                                                                                                                                                                                                                                                                                                                                                                                  176 Tégégecgacgnicatnécececabaitégricetgacadececacidectnaageceeg 235
                                                                                                                                                                      474 GCGAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCC 533
                                                                                                                                                                                                                                                       414 GACGACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGCCTCAGGCCCCATCCTGCCAAG 473
                                                                                                                                                                                                                                                                                                236 CTACATAGTTCACCTGGGGCAGCACAACCTC-----CAGAAGGAGGAGGGCTGTGA 286
                                                                                                                                                                                                                                                                                                                                            354 ACTGTGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCG 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      116 GTGTGAGCAGCATTCCCAGCCCTGGCAGGCGCTCTGTACCAGAAGACGCGGCTACTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  234 GTGCGCGCGCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTG 293
                                                                                                                                                                                                                                                                                                                                                                                                                             294 CGCGGGTGTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCC 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94304
                                                                                 ccecercceescocreckecirccciaccererecienescocreckeaccaereceser 593
                                                                                                                          CAAAGACCACCGCAATGACATCATGCTGGTGAAGATGGCATCGCCAGTCTCCATCACCTG 406
                                           GGCTGTGCGACCCCTCACCCTCACGCTGACGCTGTCACTGGCACCAGCTGCCTCAT 466
                                                                                                                                                                                                              GCAGACCCGGACAGCCACTGAGTCCTTCCCCCACCCCGGCTTCAACAACAGCCTCCCCAA 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08/790,137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PF-0195 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 160.2; DB 2;
Pred. No. 4.4e-32;
0; Mismatches 286;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 833;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12;
```

```
Ś
                                                                                                    S
                                                                                                                                               맑
                                                                                                                                                                                    8
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뭉
                                                                   뭐
                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-386-642-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        路
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-386-642-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Darrow, Enderew
APPLICANT: Qi, Jenson
APPLICANT: Andrade-Gordon, Patricia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 9, Application US/09386642 Patent No. 6420157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/386,642
CURRENT FILLIG DATE: 1999-08-31
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin Ver: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Zymogen Activation System FILE REFERENCE: ORT-1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Description of Artificial Sequence: Fusion gene OTHER INFORMATION: with homo sapien serine protease catalytic domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        587
607 ACCACGGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       527 CAACATCACCATCATTGAGCACCAGAAGTGTGAGAACGCCTACCCCGGCAACATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     487 ATCAGCCTGGCAGATCATTGCACCCAGCCTGGCCAGAAGTGCACCGTCTCAGGCTGGGGC
                                                                                                      427
                                                                                                                                                                                        487
                                                                                                                                                                                                                             375 TCAGTCCATCCCA-----CACCCCTGCTACAACAGCAGCGATGTGGAGGACCACAAC 426
                                                                                                                                                                                                                                                                                                                                                     367 GTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 TCGCAGCCTTGGCAGGCCCTTGTTCCAGGGCCAGCAACTACTCTGTGGCGGTGTCCTT 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 TCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               831 TGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAA 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    771 AGGCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              714 CAACATGATATGTGCTGGACT----GGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              654 CAGCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAA 713
                                                                                                                                                                                                                                                                       427 GTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAG
                                                                                                                                                                                                                                                                                                                                                                                            259 GTAGGTGGCAACTGGGTCCTTACAGCTGCCCACTGTAAAAAAACCGAAATACACAGTACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                   307 GTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           371; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                    CACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCCTCTGGTCTGTAACCAGTCTCTTCAAGGCATTATCTCCTGGGGCCAGGATCCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCATGGTGTGTGCCAGCGTGCAGGAAGGGAGGGCAAGGACTCCTGCCAGGGTGACTCCGG
                                                                                                                                               CATGATCTGATGCTTCTTCAACTGCGTGACCAGGCATCCCTGGGGTCCAAAGTGAAGCCC
                                                                                                                                                                                                                                                                                                                CTGGGAGACCACAGCCTACAGAATAAAGATGGCCCAGAGCAA----GAAATACCTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCGATCACCCGAAAGCCTGGTGTCTACACGAAAGTCTGCAAATATGTGGACTGGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 159.6; DB 4; Length 1049; Pred. No. 6.9e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches 299; Indels 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                          999
                                                                 546
                                                                                                                                               486
                                                                                                                                                                                      546
                                                                                                                                                                                                                                                                       486
                                                                                                                                                                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                770
```

```
US-09-008-271A-19
; Sequence 19, Application
; Patent No. 6203979
; GENERAL INFORMATION:
             SEQUENCE DESCRIPTION: SEQ ID NO: US-09-008-271A-19
                                                                                                                                                    TELEPAX: 650-845-4166
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                         COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: F-BSESEQ for Windows Version 2.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/008,271A
FILING DATE: 16-Jan-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: CUNKNOWN>
                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:

NAME: WCHAIN-PETERSON, Sheela

REGISTRATION NUMBER: 41,201

REFERENCE/DOCKET NUMBER: PF-0458 US

TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                           IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: HUMAN PROTEASE MOLECULES NUMBER OF SEQUENCES: 24 CORRESPONDENCE ADDRESS: INCYTE Pharmaceuticals, Inc. STREET: 3174 Porter Dr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Bandman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: CA
COUNTRY: USA
ZIP: 94304
                                                                                     LENGTH: 994 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTCCCCAGAAGAAGTGTGAGGATGCTTACCCCGGGGCAGATCACAGATGGCATGGTCTGT
                                           CLONE: 1798496
                                                                                                                                                                                                    TELEPHONE: 650-855-0555
                                                       LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGGGCTCTAGACATCACCATC 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTGATCCAGATGCTACGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGGCGTCTATACCAACATCTGCCGCTACCTGGACTGGATCAAGAAGATCATAGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGGTGCACTCCAGGGCATCACATCCTGGGGGTCAGACCCCTGTGGGGAGGTCCGACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGGCAGCAAAGGGGCTĠAĊACGTĠĊĊAĠĠĠĊĠATTĊŤĠĠĀĠĠĊĊĊĊĊŦĠĠŤĠŦĠŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTGTCACCAGTCCCCGAGAGAATTTTCCTGACACTCTCAACTGTGCAGAAGTAAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGGACTGGACCGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/09008271A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yue,
Guegler, kar-
Corley, Neil C.
Corney, Tom Y.
                                                         COLNNOT27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Purvi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Karl J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jennifer L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                928
                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       726
                                                                                                                       Sequence 1, Application US/09070526
Patent No. 6100059
GENERAL INFORMATION:
APPLICANT: SOUTHAN, CHRISTOPHER
APPLICANT: CLINKENBEARD, HELEN
APPLICANT: BURGESS, NICOLA
TITLE OF INVENTION: No. 6100059e1
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                      RESULT 15
US-09-070-526-1
                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                              STATE: PA
COUNTRY: US
ZIP: 19482
                                                              STREET: P.U. CONTY: VALLEY FORGE
                                                                                            ADDRESSEE: RATNER & PRESTIA
STREET: P.O. BOX 980
```

USA

6100059el Compounds

믕 S B Ś B Ś 밁 Ş 밁 S

```
Query Match
Best Local S
Matches 368
                                                                          894 AGTCATACGCTCCAACTGAT 913
                                                                                                                                                                                                                                                                    834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     714 СААСАТСАТАТСТССТССАСТССВАССССБССССТСССАСАСТСАСАСТСТСССАСА
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
    916 GATCATAGGCAGCAAGGGCT
                                                                                                                                                                                                                                                                                                                                                            796
                                                                                                                                                                                                                                                                                                                                                                                                                                           774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  414 GACGACTCGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          388 ATACACAGTACGCCTGGGAGACCACAGCCTACAGAATAAAGATGGCCCAGAGCAA----G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  268 GRGCCAACCCCATTCGCAGCCTTGGCAGGCCCTTGTCCCAGGGCCAGCAACTACTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234 GIGGGGGGGGGTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                             стствессь в степетельной степетельном степетельном степетельном степете
                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCATGGTCTGTGCAGGCAGCAGCAAAGGGGCTGACACGTGCCAGGGCGATTCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAAGTAÄAAATÖTTTCCCCCAGÄÄGAÄĞTĞTĞÄĞĞATGCTTÄCCCCGGGGCAĞATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGGGTGTCCTGGTGGACCAGAGTTGGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCC
                                                                                                                                                              GAGGTCCGACAAACCTGGCGTCTATACCAACATCTGCCGCTACCTGGACTGGATCAAGAA
                                                                                                                                                                                                                                                                                                                                CCCCCTGGTGTGATGGTGCACTCCAGGGCATCACATCCTGGGGCTCAGACCCCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCAGGCTGGGGACACTGTCACCAGTCCCCGAGAGAATTTTCCTGACACTCTCAACTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAMAGTGAAGCCCATCAGCCTGGCAGATCATTGCACCCAGCCTGGCCAGAAGTGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGCGGTGTCCTTGTAGGTGGCAACTGGGTCCTTACAGCTGCCCACTGTAAAAAACCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTGGCTGGGGCACCACGGCGGCCGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGACCACAACCATGATCTGATGCTTCTTCAACTGCGTGACCAGGCATCCCTGGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AMATACCTGTGGTTCAGTCCATCCCA-----CACCCCTGCTACAACAGCAGCGATGT 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCGTCCGGGCCCTGCCAGCTTCCCTACCGCTGTGCCCAGCCCCGGAGACCAGTGCCAGGT 593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTOTOGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10.7%; ilarity 54.1%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 156; DB 3;
Pred. No. 5.7e-31;
0; Mismatches 300
935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                      893
                                                                                                                                                              915
                                                                                                                                                                                                                                                                                                                                                                                                                              833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  653
                                                                                                                                                                                                                                                                                                                                          885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ទទទ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       327
```

```
US-09-070-526-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 610-407-0701
TELEX: 846169
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 944 base pairs
TYPE: nucleic scid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 366; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9711952.3
FILLING DATE: 9-JUN-1997
APPLICATION NUMBER: EP 97309646.4
FILLING DATE: 1-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: PRESTIA, PAUL F
REGISTRATION NUMBER: GH-30353
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-0700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: Fast-SEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 610-407-0701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/070,526
FILING DATE: 30-APR-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match 10.6%; Score 154; DB 3; Length 944; Local Similarity 53.8%; Fred. No. 1.8e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                338
                                       774 CCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGGTGTTTACCCCCTGTGG
                                                                                                                                                                             714 CAACATGATATGTGCTGGACTGGACCGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGG
                                                                                                                                                                                                                                                 626 AGAAGTAAAATCTTTCCCCCAGAAGAAGTGTGAGGATGCTTACCCCGGGCAGATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                 594 TGCTGGCTGGGGCACCACGGCCGCCCGGAGAGTGAAAGTACAACAAGGGCCTGACCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             474 GCGAACGGATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCC 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           394 ABATACCTGTGGTTCAGTCCATCCCA------CACCCCTGCTATAACAGCAGCGATGT 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     414 GACGACTCGCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAG 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         278 TGGCGGTGTCCTTGTAGGTGGCAACTGGGTCCTTACAGCTGCCCACTGTAAAAAACCGAA 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234 GTGCGCGCGGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCAACTG 293
                                                                                                                        686 TGGCATGGTCTGTGCAGGCAGCAGCAAAGGGGCTGACACGTGCCAGGGCGATTCTGGAGG
                                                                                                                                                                                                                                                                                                         654 CAGCATCACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAA 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 294 сесееететестветвалесленеттесетествлеессесествессвальносляес 353
ccccresreredategrecacrecaesecarcacarecresesecreaeaececresies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGACCÁCAÁCCÁTGAÍCTGAÍGCÍTCÍTCAACÍGCGIGACCAGGCÁTCCCTGGGGTC 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATACACAGTACGCCTGGGAGACCACAGCCTACAGAATAAAGATGGCCCAGAGC----AAG 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTGTGGGCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCG 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCCAACCCCATTCGCAGCCTTGGCAGGCCGCCTTGTTCCAGGGCCAGCAAYTACTCTG
                                                                                                                                                                                                                                                                                                                                                                          CTCAGGCTGGGGCACTGTCACCAGTCCCCGAGAGAATTTTCCTGACACTCTCAACTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAAGTGAAGCCCATCAGCCTGGCAGATCATTGCACCCAGCCTGGCCAGAAGTGCACCGT 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ccecercceeeccrecoaccirccayccecrerecocyecceeaeyccaerecoaeer 593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  j...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Mismatches 301; Indels 12; Gaps
```

Ş

δ 멼 Ş 뫉 Ş 유 Ş 밁 γŞ 많 Ş 벍

. 685

625

653

773

745

805

Ś

뮍 Ş 밁

₽

```
8
                                                                                 밁
                                                                                                                 Ś
                                                                               834 CTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAA 893
806 GAGGTCCGACAAACCTGGCGTCTATACCAACATGTGCCGCTACCTGGACTCGATCAAGAA 865
866 GGGCGAAGGCAAGGGCT 885
                                    894 AGTCATACGCTCCAACTGAT 913
```

Search completed: November 25, 2003, 07:31:35 Job time : 105 secs

```
Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N Geneseq 19Jun03:*

1: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1980.DAT:*

2: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*

3: /SIDS1/gcgdata/genesed/geneseqn-embl/NA1983.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*

5: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1984.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*

7: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*

8: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1988.DAT:*

9: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1988.DAT:*

9: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              November 25, 2003, 04:52:03; Search time 425 Seconds (without alignments) 9235.254 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2552756 seqs, 1349719017 residues
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1990.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1991.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1991.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1992.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1993.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1994.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5105512
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARI	
BS	

	Match	Length	BB	ID	Description
1454	- 1	1454	18	AAT44111	Human NES1 cDNA.
1454	100.0	1454	24	ABS76452	cDNA encoding huma
1454	100.0	1454	24	ABT06519	Human serine prote
1442	99.2	1457	24	AB234966	Human dene express
829.4	57.0	831	24	ABK31771	DNA encoding novel
627	43.1	750	24	ABQ55252	Human ovarian ant:
508.4	35.0	532	24	ABL63341	Breast cancer rela
508.4	35.0	532	24	ABL63744	Breast cancer rela
		Match 100.0 100.0 99.2 57.0 43.1 35.0	Match 100.0 100.0 99.2 57.0 43.1 35.0	Match 100.0 100.0 100.0 99.2 57.0 43.1 35.0 35.0	Match Length DB 1 100.0 1454 18 100.0 1454 24 100.0 1454 24 99.2 1457 24 99.2 1457 24 35.0 831 24 35.0 532 24

										o	Ω	ი			a	Ω	a		ი		O	ი		ი	ი	ი	Ω	a	ი	n	o	o		G		
45	44	43	42	41	40	39	38	37	36	35	34	w	ა გ	<u>ω</u>	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
165.8	173.8	173.8	173.8	173.8	173.8	203.4	203.4	243.4	256	267.2	267.2	267.2	274.6	295	319	319	329.4	335.6	345.4	352	953 353	353	367	376	376	376	376	376	379.6	383.8	438.4	445.4	•	448.4	508.4	508.4
11.4	12.0	12.0	12.0	12.0	12.0	14.0	14.0	16.7	17.6	18.4	18.4	18.4	18.9	20.3	21.9	21.9	22.7	23.1	23.8	24.2	24.3	24.3	25.2	25.9	25.9	25.9	25.9	25.9	26.1	26.4	30.2	30.6	30.8	30.8	35.0	35.0
1166	1185	1091	1091	1091	1091	319	205	267	274	283	283	283	292	339	321	321	349	377	359	421	373	373	434	396	396	396	396	396	430	399	468	470	449	454	532	532
22	22	22	21	21	21	22	22	24	24	24	24	24	24	24	25	22	24	21	24	24	25	22	24	24	24	24	24	24	24	24	24	24	24	24	24	24
AAD14841	AAH98653	AAF54341	AAA37075	AAA77671	AAC58114	AAH83124	AAS24516	ABL79810	ABL79814	ABL82297	ABL67485	ABL67055	ABL81595	ABL82894	ABZ33597	AAI29411	ABL80212	AAZ80588	ABL82352	ABL81769	ABZ33513	AAI29327	ABL79953	ABL81574	ABL66152	ABL64839	ABL63950	ABN94495	ABL81770	ABL82197	ABL79803	ABL79800	ABL82374	ABL82657	ABL82556	ABL67277
	Human EST-derived	ncoding p	Human PRO1303 (UNQ	PRO1303	PRO1303	ovarian	ovarian	ovarian		Human ovarian canc	Thyroid cancer rel	Thyroid cancer rel					_					Colon tumour relat	Human ovarian canc	ı ovaria	Lung cancer relate	Lung cancer relate	Breast cancer rela	Gene #993 used to		ovarian	Human ovarian canc	ovarian	ovarian	Human ovarian canc	Human ovarian canc	Thyroid cancer rel

ALIGNMENTS

PA	PR	X X	8 %	×	₹ 💢	F	ΡŢ	H	ΕŢ	H	×	၀ွ	×	₹	₹	Ş	×	BG	×	7	Ž	Š:	×	HALTELLE	RESULT 1
(NEWB-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.	06-JUN-1995; 95US-0467155.	21-MAY-1996; 96WO-US07343.	12-DEC-1996.	MC2903210-M1.			w	/*tag= a	CDS 82912	Key Location/Qualifiers		Homo sapiens.		serine protease; ss.		NES1; malignancy; cancer; breast carcinoma; cervix carcinoma;		Human NES1 cDNA.		28-FEB-1997 (first entry)		AAT44311;		אַדְּיּאָלְאָין ctandard. כּייִאני 1454 BD	LT 1

```
밁
                  Ş
                                               멇
                                                               S
                                                                                     닭
                                                                                                              S
                                                                                                                                  문
                                                                                                                                                        δ
                                                                                                                                                                                 B
                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                           퉗
                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                            뭕
                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                           멼
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A cDNA clone (AAT44111), termed NES1 (for Normal Epithelial Specific-1), codes for a scrine protease (AAM07620) negatively associated with epithelial cell malignancy. A radiation-transformed human mammary epithelial cell (MEC) line, 768-30, was established from a normal MEC strain, 76N, by gamma-irradiation. Subtractive hybridisation between 76N and 76R-30 cells yielded the MES1 clone, whose mRNA expression was greatly decreased in 76R-30 cells. NES1 provides a diagnostic marker for breast, cervical and prostate carcinomas and can provide genetic constructs for cancer gene therapy. It can also be used to produce recombinant NEC1 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NES1 polypeptide, negatively associated with epithelial cell malignancy - provides diagnostic marker for breast, cervical and prostate carcinoma, and can be useful for treating these diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Band
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                            481
                                                                                                                                                              421
                       601
                                                541
                                                                     541
                                                                                                                   481
                                                                                                                                          421
                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1997-042855/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ٥
   109
                                                                                                                                                                                       361
                                                                                                                                                                                                             361
                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        بر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ப
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                         GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCGGCCGCCCTCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page
                                                          CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                           GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                           CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                    GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACC
                                                                                                                                                                                                                                                  GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACCGCCTCTCGTTCCACTGCGCGGGGT
                                                                                                                                                                                                                                                                                                    CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                               GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                           GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                        GCCCGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
TGGGGCACCACGGCCGGCGGAGAGTGAAGTACAAGGGCCTGACCTGCTCCAGCATC
             TGGGGCACCACGGCCGCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                       GCTCGAGTAGGGGÀTGATCACCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                     GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                             GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВÞ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45-46;
                                                                                                                                         PTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Α
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1454;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ů
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
 660
                       660
                                            600
                                                                    600
                                                                                           540
                                                                                                                 540
                                                                                                                                         480
                                                                                                                                                              480
                                                                                                                                                                                      420
                                                                                                                                                                                                             420
                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
```

```
몽
                                                            S
                                                                                                            S
                                                                                                                                                                                                                                                   Š
                                                                                  몽
                                                                                                                                       g
                                                                                                                                                        S
                                                                                                                                                                               망
                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                           묫
                                                                                                                                                                                                                                                                            뮹
                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                       뭉
                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                1141
                                                                                         1321
                                                                                                                                                                                                                                                                               1081
                                                                                                                                        1261
                                                                                                                                                              1261
                                                                                                                                                                                     1201
                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                       106
                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                            106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                         GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTTCGTG
                                                                                         TCTTAGACATGTTGTGAGGAGACTATGATATAACATGT
                                                                                                       AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                    CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGAGCAGTTA
                                                                                                                                                                                                                                                         CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                            CATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                           CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                            TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                        TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                       CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                     CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                        AGTGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                           CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                    1454
                                                                                         GTATGTAAATCTTCATGTGATT
                                                                                                                                                             1320
                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                         1200
                                                                  1440
                                                                                                                                        1320
                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
```

RESULT 2
ABS76452
ID ABS7
XX
AC ABS7
XX
DT 11-E
DT 11-E
XX
CDNA
XX
CEDNA
XX
KW Huma
KW AlaEnt
KW ABS76452 standard; CDNA; 1454

₽₽

S

encoding human ovarian cancer marker

(first

entry)

Human; ovarian cancer; marker; cancer; familial history; brain disorder; central nervous system disorder; bacterial meningitis; viral meningitis; Alzheimer's disease; Parkinson's disease; cerebral oedema; hydrocephalus; brain herniation; inflammation; encephalitis; testicular disorder; nontuberculous granulomatous orchitis; connective tissue disorder;

```
Ş
                                            밁
                                                                          Ş
                                                                                                                                                                                       The present invention relates to a new method for assessing whether a CC patient is afflicted with ovarian cancer. The method involves comparing CC the expression level of a marker in a patient sample and the normal level of expression of the marker in a control non-ovarian cancer sample, where CC specification. The method of the invention is useful in diagnosing or CC characterising cancer, in detecting the presence of cancer as early as CC possible, and the recurrence of ovarian cancer raise and treatment of cancer. The method may also be of CC particular use with patients having a familial history of ovarian cancer (e.g. patients having a familial history of ovarian and central nervous system disorders (e.g. bacterial and CC of e.g. brain and central nervous system disorders (e.g. bacterial and CC viral meningitis, Alzheimer's disease or rarkinson's disease), brain CC disorders (e.g. bacterial or viral meningitis or encephalius or brain herniations). CC inflammations (e.g. bacterial or viral meningitis or encephalitis), CC connective tissue disorders or heart disorders (e.g. ischaemic heart (disease or atherosclerosis). The compositions and methods may also be CC used in assessing the histological type of neoplasm associated with ovarian cancer, monitoring the progression of ovarian cancer, assessing the ovarian carcinogenic potential of a compound, or assessing the ovarian carcinogenic potential of a compound, or assessing the ovarian cancer or at risk of developing ovarian cancer. The CC metastasize, selecting a composition for inhibiting ovarian cancer or the progression of ovarian cancer. The composition of the ovarian cancer. The composition of the ovarian cancer as the invention.
                                                                                                                  Matches 1454;
                                                                                                                                                   Query Match
                                                                                                                                                                                   Sequence 1454 BP; 289 A; 481 C; 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Assessing whether a patient is afflicted with ovarian cancer, useful in assessing the stage or progression of the disease, comprises comparing the expression level of a cancer marker in a sample from a patient and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Monahan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                            described
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 289-290; 481pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-SEP-2001;
26-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAR-2001;
10-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-MAR-2002; 2002WO-US07826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-SEP-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          histological type; carcinogenic; ovarian cancer marker; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heart disorder; ischaemic heart disease; atherosclerosis; neoplasm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rrom a non cancer patient -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-723277/78.
DB; ABG96356.
           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RE,
                                                                                _
                                                                                                                                    Similarity
       GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCCCCTCTCGC
                                                                            in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ľu K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gannavarapu M, Hoersch S, Kamatka
Morrisey MP, Olandt PJ, Sen A, Vi
u K, Schmandt RE, Zhao X, Glatt K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-276026P.
2001US-311732P.
2001US-323580P.
2001US-324967P.
2001US-325102P.
                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-276025P
                                                                                                                                                                                                                        invention.
                                                                                                                              100.0%; Score 1454;
100.0%; Pred. No. 0;
                                                                                                                0
                                                                                                                Mismatches
                                                                                                                                                                                     G; 307 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kamatkar S,
                                                                                                                                                   DB 24; Length 1454;
                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vieby PO,
                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kovatis SG;
O, Mills GB;
                                                                                                                0; Gaps
                                            60
                                                                            60
                                                                                                               0
                                                         밁
                                                                                        Š
                                                                                                                              Ď,
                                                                                                                                                            S
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                              1021
                                                                                                                                                                  1021
                                                                                                                                                                                                     961
                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCGCCCCCCTCTGGC
                                                                            CATTCCCCCACCTATCCCCATTCTCTGCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCGGCTCGCAGCCCTGGCAGGTCTCGTCTTCAACGGCCTCTCGTTCCACTGCGCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCGGCTCTGCCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                              TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                       TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                   CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                     CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCT 1020
                                                                                                                                                                                                                                                                                                        CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                         CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                   GECTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCTGTGACGAGACCCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCTGCTCCCCAAAACGACACGCGCTTTGGACCCCGAAGCCTATGGCGCCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGCTGCTCCCCAMAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                       CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                          CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                      1200
                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                       1140
                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮻
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
The present invention relates to a method of diagnosing a cellular proliferative disorder of breast tissue, which involves determining the state of methylation of one or more nucleic acids isolated from the subject, where the state of methylation of the nucleic acids as compared with a state of methylation from a subject not having the cellular proliferative disorder of breast tissue is indicative of a cellular proliferative disorder of breast tissue in the subject. The nucleic acids may be TWIST, HOXAS, NES-1, retinoic acid receptor beta (RARbeta), cestrogen receptor, Cyclin D2, Wilms' tumour gene (WT-1), 14.3.3 sigma, HIN-1 or RASSF1A. The method is useful for diagnosing and/or determining a predisposition to a cellular proliferative disorder, in particular
                                                                                                                                                                                                                                                 Diagnosing and/or determining a predisposition to a cellular proliferative disorder of breast tissue, in particular breast cancer, by determining the state of methylation of one or more nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; methylated gene; methylation; breast cancer; marker; WT-1; cell proliferative disorder; TWIST; HOXA5; MSS-1; RARbeta; cyclin D2; retinoic acid receptor beta; cestrogen receptor; Wilms' tumour; 14.3.3 sigma; HIN-1; RASSFIA; tumour suppressor gene; hypermethylatio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABT06519 standard; DNA; 1454
                                                                                                                                                                                                    Disclosure; Fig 4A; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                      Sukumar S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                    26-JAN-2001; 2001US-0771357.
                                                                                                                                                                                                                                                                                                                                                                                      (UYJO ) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                      2002-599803/64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      promoter; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       serine protease-like protease NES-1 coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAAAAAAAAAAA 1454
||||||||||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CABAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA 1200
                                                                                                                                                                                                                                      from the subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                    Evron E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002WO-US02455.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                    Dooley WC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gg.
                                                                                                                                                                                                                                                                                                                                                      Sacchi N,
                                                                                                                                                                                                                                                                                                                                                      Davidson N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene; hypermethylation;
                                                                                                                                                                                                                                                                                                                                                        Fackler MJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1320
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             និនិនិនិនិនិ
 В
                            Ś
                                                         밁
                                                                                 Š
                                                                                                                  문
                                                                                                                                            Ś
                                                                                                                                                                         皮
                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1454; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    breast cancer including ductal carcinoma in situ, lobular carcinoma, colloid carcinoma, tubular carcinoma, metaplastic carcinoma, intraductal carcinoma in situ, lobular carcinoma in situ and papillary carcinoma in situ. The present sequence is a gene fragment use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1454 BP; 289 A; 481 C; 377 G; 307 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                       541
                            841
                                                                                                                                                                            661
                                                                                                                                                                                                        661
                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                         781
                                                                                       781
                                                                                                                   721
                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCTGCTCCCCAAAACGACACGCGCTTTGGACCCCGAAGCCTATGGCGCCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCTCCGCCGCCTCTGGC
                                                                                                                                                                                                                                                                                                               CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                   GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCGTAGTGCCGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                     GATGAGCACGATCTCATGTTGCTAAAGCTTGGCCAGGCCCGTAGTGCCGGGGCCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCCTCCTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC
CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                  CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                   ATATGTGCTGGACCTGGGGCCAGGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                               ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                   TGGGGCACCACGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                             CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                    GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                  ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                            ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                TGGGGCACCACGGCCGCGCGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1454;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                780
                                                                                                                                                                            720
                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                 540
```

CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC

```
Ş
 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ᇊ
                                                                                                                                                                                                                                                                         Human; artery; endothelium; umbilical; vein; aorta; pulmonary artery; bronchial epithelium; prostate; muscle; lung fibroblast; osteoblast; tumour; microarray; genome mapping; antibiotic; antiviral; antifungal;
New gene expression profile generated from primary, endothelial, epithelial, and muscle cell types, useful for identifying disease
                                        WPI; 2002-740862/80.
                                                                                                                                                   20-MAR-2002; 2002WO-US08456.
                                                                                                                                                                                                                                                                                                                                                                                                                    ABZ34966 standard; cDNA; 1457 BP.
                                                                                                                         20-MAR-2001; 2001US-276947P
                                                                                                                                                                                                           WO200274979-A2
                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                              05-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                              expression; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                  gene expression profile polynucleotide SEQ ID NO
                                                                 Wang Y;
                                                                                               ORTHO CLINICAL DIAGNOSTICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCAGTCGGCTGAACTCTCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGGTCACCCAACCTGACTTCCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CANAGGITIATICCAGAGAAGCCAGGAAGCCGGICATCACCCAGCCICIGAGAGCAGITA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATTCCCCCACCTATCCCCATTCTCTGTGCTGTACTGAAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCAGTCGGCTGAACTCTCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCCTCTAAACATCTCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
```

```
exaxonnonendendendendendendendenden
                                                 The invention relates to a gene expression profile comprising one or more CC genes (AB234889-AB235692) and generated from a cell type. The cell type CC is a coronary artery endothelium, umbilical arrery or vein endothelium, cermal microvascular endothelium, pulmonary artery endothelium, microvascular endothelium, pulmonary artery cendothelium, myometrium microvascular endothelium, pulmonary artery endothelium, renal epithelium, renal proximal tubule epithelium, cepithelium, renal proximal tubule epithelium, cenal proximary artery smooth muscle, cenal fibroblast, curcinary should be artery smooth muscle, cenal fibroblast, curcinary should be used for creating disease pathologies or protein curcinary artery smooth muscle, cenal fibroblast, cenal fibroblast, cenal fibroblast, cenal fibr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Page 273; 850pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pathologies involving alterations of gene expression, e.g. cancer
```

Sequence 1457 BP; 293 A; 480 C; 377 G; 307 T; 0 other;

Ş 밁 S 밁 Ś 밁 Ş 밁 Ş 밁 Ś 용 S 땅 S В Matches Query Match Match 99.2%; Local Similarity 99.9%; 541 CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC 361 301 301 241 181 121 GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG 1453; 421 421 361 241 181 121 61 61 GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCCTCTGGC GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCCCGCGTC GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCACTGCGGAAACAAGCCACTGTGG CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCCGTTCCACTGCGCGGGT CGCGGCTCGCAGCCCTCGCGGGCTCTCCAACGGCCTCTCGGTTCCACTGCGCGGGT GCGCTGCTCCCCAAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG Conservative 0, Score 1442; DB 24; Pred. No. Mismatches Ö Indels Length 1457; 1 Gaps 600 480 480 420 420 360 360 300 300 240 180 180 120 60 S

```
RESULT 5
ABK31771
ID ABK3
XX
XX
AC ABK3
AC ABK3
DY 23-A
XX
XX
DY 23-A
XX
DE DNA
                                                                                                                                                                                                        8
                                                                                                                                                                        Š
                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                        뭐
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멎
             DNA encoding
                                       23-APR-2002
                                                                                                                                                      1440
                                                                                                                                                                              1441
                                                                                                                                                                                                                               1381
                                                                                                                                                                                                                                                        1320
                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                        standard;
                                                                                                                                                      <u>AAAAAAAAAAAAA</u>
                                                                                                                                                                             aaaaaaaaaaaaaa
                                                                                                                                                                                                                    GTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                                     AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                             AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAAATGGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                         CAAAGGTTTAITCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGATGCCCAGAGGCTCCATCGTCCATCCTTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                      creeerreacceaaccreacrrecreteacrececeerrereacrreeecaaeca
                                                                                                                                                                                                                                                                                                                                                                                   CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                           CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTCTGCACTGTTCAAACCTCTGCGCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAACGGCCTGACCTGCCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA: 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGATCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
             novel human protease
                                     (first entry)
                                                                                      DNA;
                                                                                        831
                                                                                                                                                      1453
                                                                                                                                                                             1454
                                                                                        BP
             #28
                                                                                                                                                                                                     1439
                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                                                         1259
                                                                                                                                                                                                                                                                                                                                                                                   1260
                                                                                                                                                                                                                                                                                                                                                                                                          1199
                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   959
                                                                                                                                                                                                                                                     1379
                                                                                                                                                                                                                                                                                                        1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
```

```
Human; protease; cancer; immune-related disorder; cardiovascular disease neuronal-associated disease; metabolic disorder; inflammatory disorder; nervous system disorder; sexual dysfunction; pain; mood disorder; nervous system disorder; sexual dysfunction; pain; mode disorder; hypertension; psychotic disorder; neurological disorder; dyskinesia; bypertension; buman immunodeficiency virus; HIV; non-viral infection;
                                                                                                                                                                                                                           ocular disease;
WO200200860-A2
                                                                                                                                                                                                                           cytostatic; gene; ds.
```

26-JUN-2001; 2001WO-US20171

26-JUN-2000; 2000US-214047P

(SUGE-) SUGEN INC

Plowman G, Charydczak Ω Whyte Á Sudarsanam Manning Ģ Caenepeel

2002-139913/18. DB; AAU82729.

Nucleic acids encoding novel human proteases, useful for useful for treating diseases and disorders such as cancers, immune-related diseases and disorders, cardiovascular disease (e.g. restenosis) and inflammatory disorders.

Claim 26; Fig 1CC; 313pp; English

CC The present invention relates to the isolation of novel human CC proteases, and the nucleic acids encoding them. The sequences of the invention are useful for treating diseases and disorders such as CC cancers (e.g. breast, colon, lung), immune-related diseases and disorders (c.g. inflammatory diseases and asthma), cardiovascular diseases (c.g. restenosis and coronary thrombosis), brain or neuronal-associated diseases, metabolic disorders (e.g. diabetes, obesity), inflammatory CC disorders (e.g. rheumatoid arthritis and psoriasis), central or peripheral nervous system diseases, migraines, pain, sexual dysfunction, CC mood disorders, attention disorders, cognition disorders, hypotension, CC hypertension, psychotic disorders, neurological disorders, hypotension, CC hypertension, psychotic disorders, neurological disorders (e.g. Alzheimer's disease, Parkinson's disease) and dyskinesias. CC The nucleic acids and polypeptides are also useful for treating viral confections such as ocular disease (e.g. glaucoma) and macular confections such as ocular disease (e.g. glaucoma) and macular for the invent in DNA sequences encoding for the invent in DNA sequences encoding for the invent in DNA sequences of the invent in DNA sequences and conditions of th the novel human proteases of the invention. disorders

Sequence 831 BP; 146 A; 287 C; 245 G; 153 T; 0 other;

Similarity

57.0%; 99.9%;

Score 829.4; Pred. No. 7.9

; DB 24; .9e-179;

Length

밁 Ş 밁 Ś 밁 Ş 묽 S Query Match Best Local S Matches 830 322 181 121 142 830; 61 82 ATGAGAGCTCCGCACCTCCACCTCTCCGCCCCTCTGGCGCGCCCCGGGCTCTGGCGAAGCTG GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG creccerecreciantescecancicreseccecnes de de ceccerecrecian de concere de conce GTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCAC CTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCGGCGCTGCTCCCCCAAAACGAC ATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGCCCCGGGCTCTGGCGAAGCTG Conservative 0 Mismatches 1. Indels <u>.</u> Gaps 381 180 261 240 321 120 201 60

```
RESULT 6
ABQ55252
ID ABQ5
XX ABQ5
AC ABQ5
XX 22-A
DT 22-A
XX Huma
DE Huma
XX Huma
XW Ovar
KW FCOS
KW infl
KW Gard
KW Gard
KW Gard
KW Gard
KW Gard
KW Gard
XX Homo
OS Homo
OS Homo
OS Homo
OS Homo
OS GO-J
XX W7-J
XX W7-J
XX W7-J
XX HUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                        Human; ovarian antigen; ovary; ovarian; breast; cancer; tumour; ovarian cancer; breast cancer; tumour; reproductive system disorder; inferrility; pregnancy disorder; anovulation; polycystic ovary syndrome; PCOS; ovarian cyst; dysmenorrhoea; endocrine disorder; infection; inflammatory condition; immune disorder; blood disorder; orardiovascular disorder; respiratory disorder; neurological disorder; gastrointestinal disorder; urinary system disorder; drug screening; gene therapy; chromosome mapping; forensic antalysis; antibody preparation; cytostatic; immunomodulatory; neuroprotective; antiinflammatory; gynaecological; reproductive; gene; ss.
                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                             Human ovarian antigen HCOPE27 cDNA, SEQ ID NO:1132.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABQ55252 standard; cDNA; 750 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGA 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CIGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGCTCTGTTGTCCATCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGA 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCATCCTCTCGTGGGGGTTTTACCCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCCTGGTCTGACGAGACCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCCTGGTCTGTGACGAGGCCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCCTAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CECTETECTCAECCCEGAGACCAGTECCAGGTTGCTGGCTGGGGCACCACGGCCGCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAJAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGCCCTGCAGCTTCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTARAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGCCCTGCAGCTTCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCTGCTTCTTCAGGGGGAGCAGCTCCGCCCGGACGACTCGCTCTGTTGTCCATCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
```

```
CC ABP43288) and to cDNAs encoding them (ABQ54131-ABQ56305), and also compasses polypeptides 90% identical and polynucleotides 95% identical compounds to the sequences of the invention. The invention additionally relates to recombinant vectors and host cells comprising human ovarian antigen of the invention and polypeptides in diagnosing, comprising human ovarian antigen and the use of ovarian antigen polypucleotides and polypeptides in diagnosing, comprising human ovarian antigen was disorders. Such conditions include ovarian cancer and breast cancer, and metastatic tumours of ovarian or breast origin, reproductive system adjoraters (e.g., infertility, disorders of pregnancy, anovulation, polycystic ovary syndrome, ovarian cysts, and dysmenorrhoeal, endocrine disorders, infections (e.g., chlamydia, HtV, toxoplasmosis, and toxic compinitis), immune disorders (e.g., congenital and acquired immunodeficiencies, autoimmune ophoritis, systemic lupus crythematosus), to blood-related disorders (e.g., anaemia), cardiovascular disorders, compinitis, systemic lupus crythematosus), condulate ovarian antigen expression or activity. The polynucleotides may also be used in screening for compounds which complying also be used in screening for compounds which complying and the used in forensic analysis, and the collypeptides may be used as food additives or to prepare antibodies sequence represents cDNA encoding a human ovarian antigen of the convention.
Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolated nucleic acid molecules encoding novel ovarian polypeptides, useful in the prevention, treatment and diagnosis of cancer (e.g. ovarian cancer), immune disorders, cardiovascular disorders and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to 2175 novel human ovarian antigens (ABP41054-ABP43228) and to cDNAs encoding them (ABQ54131-ABQ56305), and also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Birse CE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID No 1132; 2922pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; ABP42175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-147878/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rosen CA;
```

Seguence 750 BP; 144 A; 254 C; 173 G; 169 T; 10 other;

S 유 S 뭉 Ś 멼 Ś Ş 용 문 Ş Matches 652; Query Match Best Local Similarity 301 241 750 181 690 121 910 61 ь CTCGTGGGGTGTTTACCCCTGTGGCCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTG GTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGGCCCTAAAGAGTGTGAGGT CTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTG CCCTTGCCMGAGTGACTCTGGAGGCCCCCTGGTGTGACGAGACCCTCCAAGGCATCCT CTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGGGGCCAGGA GTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCCTAAAGAGTGTGAGGT TCAGCCCGGAGACCAGTGCCAGGTTGCTGGCTGGGGGCACCACGGCCGCCCCGGAGAGTGAA тся ссе с в под поста в GGCCAGGCCNGTAGTGCCGGGGCCCCGCGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGC GGCCAGGCCGGTAGTGCCGGGGCCCCGGGCCCTGCAGCTTCCCTACCGCTGTGC CTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGGGGCCAGGA Conservative 98.2%; 43.1%; 0; Mismatches Score 627; DB 24; Pred. No. 7.4e-133 DB 24; Length Indels ۱. .. Gaps 749 180 689 120 629 569 869 300 809 240 60

360

07-JUN-2000; 2000US-209467P. 07-JUN-2001; 2001WO-US18569

(HUMA-) HUMAN GENOME SCI INC

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뮻
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
           20-SBP-2000;
20-SBP-2000;
20-SBP-2000;
22-SBP-2000;
25-SBP-2000;
25-SBP-2000;
25-SBP-2000;
25-SBP-2000;
25-SBP-2000;
25-SBP-2000;
25-SBP-2000;
25-SBP-2000;
27-SBP-2000;
28-SBP-2000;
28-SBP-2000;
                                                                                                                                                                                                                              05-JUN-2000;
05-JUN-2000;
18-SEP-2000;
18-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                 Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid; stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous; cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
                                                                                                                                                                                                                                                                                    30-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                               Breast cancer related gene sequence SEQ ID NO:1678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABL63341 standard; DNA; 532 BP
                                                                                                                                                                                                                                                                                                                                WO200194629-A2
                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gccg 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTACTGAAGCTTAAATGCANGAAGTGGTGGCCAAGG-TTATTCCANAGAAGCCAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTTCCTCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTTCAAACCTCTG-CCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAA 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGNCTGCACTGTTCAAACCTCTGCCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCC
2000US-234034P

2000US-23405SP

2000US-23450PP

2000US-234923P

2000US-234923P

2000US-235077P

2000US-235082P

2000US-235280P

2000US-235280P

2000US-235280P

2000US-235280P

2000US-235637P

2000US-235637P

2000US-23563P

2000US-23563P

2000US-23563P

2000US-23563P

2000US-23563P

2000US-23563P
                                                                                                                                                                                                                               2000US-233133P.
2000US-233617P.
                                                                                                                                                                                                                                                                                     2001WO-US10838.
                                                                                                                                                                                                                                                                2000US-209473P.
                                                                                                                                                                                                                      2000US-234009P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
```

```
문
                                                                                                   Ş
                                                                                                                                               片
                                                                                                                                                                               Ś
                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a method (M1) for screening for an anti-neoplastic agent. The method involves exposing cells to a chemical continuous continuous capture agent to be tested for anti-neoplastic activity, determining a change in capture to be tested for anti-neoplastic activity, determining a change in comprises a sequence (S) selected from 847 sequences (given in ABL6164 to ABL70110), or is at least 95% identical to (S), where a change in capturity and can be used in gene therapy. M1 can be used for screening capturity and can be used in gene therapy. M1 can be used for screening capturity and the data of an be used for producting a product which capture and/or properties of the agent to convey the chemical capture and/or properties of the agent. M1 can be used in the convey the chemical capture and/or properties of the agent. M1 can be used in the convey the chemical capture and/or properties of the agent. M1 can be used in the conveying a product which capture and/or properties of the agent. M1 can be used in the conveying a product which capture and/or properties of the agent. M1 can be used in the conveying a product which capture and capture and
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 531; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-SEP-2000
29-SEP-2000
29-SEP-2000
29-SEP-2000
29-CTI-2000
02-CCTI-2000
02-CCTI-2000
02-CCTI-2000
02-CCTI-2000
03-CCTI-2000
03-CCTI-2000
03-CCTI-2000
03-CCTI-2000
03-CCTI-2000
03-CCTI-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening for anti-neoplastic agent involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, and determining a change in expression of a gene of a signature gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 532 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID 1678; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-188264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AVAL-) AVALON PHARM.
                       952
                                                                 180
                                                                                                                                               121
                                                                                                                                                                                    832
                                                                                                                                                                                                                                                                                                                                                712
                                                                                                                                                                                                                                                                  772
                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                         <u>سر</u>
                                                                                                                                                                                                                                                                                                         CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCCCCAGTCGGCTGAA
                                                                                    AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                    GGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                           GCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                  egcccccreercrereaceaeacccrccaaeecarccrcrceregeercrraccccrer
                                                                                                                                             GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Augustus M, Weaver Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-237294P.
2000US-237295P.
2000US-237316P.
2000US-237425P.
2000US-237598P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-236109P.
2000US-236111P.
2000US-236842P.
2000US-236891P.
2000US-237172P.
2000US-237173P.
2000US-237278P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; 2000US-237604P.
; 2000US-237606P.
; 2000US-237608P.
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-244867P
2000US-245084P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     110 A; 183 C; 113 G; 126 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                        35.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carter KC,
                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                          Score 508.4;
Pred. No. 6e
                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ebner R,
                                                                                                                                                                                                                                                                                                                                                                   Ge-106;
Thes 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                            24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Endress G,
                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Horrigan
                                                                                                                                                                                                                                                                                                                                                                                       ა
``
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Set
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                       1011
                                                                                                     951
                                                                                                                                               179
                                                                                                                                                                                    891
                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                    831
                                                                                                                                                                                                                                                                                                           60
```

Ņ

```
RESULT 8
ABL63744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
  멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                        25-SEP-2000;
25-SEP-2000;
25-SEP-2000;
25-SEP-2000;
26-SEP-2000;
26-SEP-2000;
27-SEP-2000;
27-SEP-2000;
27-SEP-2000;
27-SEP-2000;
28-SEP-2000;
28-SEP-2000;
                                             28-SEP-2000;
28-SEP-2000;
28-SEP-2000;
28-SEP-2000;
                                                                                                                                                                                                                                 22-SEP-2000;
25-SEP-2000;
25-SEP-2000;
                                                                                                                                                                                                                                                                    20-SEP-2000;
20-SEP-2000;
20-SEP-2000;
22-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid; stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous; cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABL63744 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                    05-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                            30-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Breast cancer related gene sequence SEQ ID NO:2081.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1192 -GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAGITACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGTGTGTG 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCCAGCCTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
2000US-234567P.
2000US-234923P.
2000US-235902P.
2000US-235902P.
2000US-235537P.
2000US-235638P.
2000US-235638P.
2000US-235638P.
2000US-235638P.
2000US-235638P.
2000US-235638P.
2000US-235638P.
2000US-23563P.
2000US-23563P.
2000US-23563P.
2000US-23563P.
2000US-23663P.
2000US-23663P.
2000US-23663P.
2000US-236119P.
2000US-236119P.
2000US-23631P.
2000US-23631P.
2000US-23631P.
2000US-23631P.
2000US-23631P.
2000US-23631P.
2000US-23631P.
2000US-23631P.
                                                                                                                                                                                                                                                                   2000US-209473P.
2000US-209531P.
2000US-23313P.
2000US-233617P.
2000US-234009P.
2000US-234034P.
2000US-234052P.
2000US-234559P.
                                                                                                                                                                                                                                                                                                                                                                          2001WO-US10838.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ŗρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    299
```

```
S
                                              밁
                                                                               S
                                                                                                                                                δ
                                                                                                                                                                                       욹
                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       몆
                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes a method (M1) for screening for an anti-neoplastic agent. The method involves exposing calls to a chemical cagent to be tested for anti-neoplastic activity, determining a change in CC expression of at least one gene (I) of a signature gene set, where (I) CC comprises a sequence (S) selected from 8447 sequences (given in ABL51664 to ABL70110), or is at least 95% identical to (S), where a change in CC expression is indicative of anti-neoplastic activity. (I) has cytostatic compression is indicative of anti-neoplastic activity. (I) has cytostatic compression is indicative of anti-neoplastic activity, and can be used for groducing a product which compared to the second of the second compared to the anti-neoplastic agent as a ccorrespit of M1, and the data is sufficient to convey the chemical constructure and/or properties of the agent. M1 can be used in the CC treatment of cancer such as colon, breast, stomach, lung, thyroid, CC desophageal, ovarian, kidney, prostate or pancreatic cancer, confiltrating douctal cancer, confiltrating lobular cancer, sequences cell carcinoma, neuroendocrine carcinoma, carcinoma, and will of a tructure.
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 531; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-OCT-2000;
03-OCT-2000;
01-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Young PE,
Soppet DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Screening for anti-neoplastic agent involves exposing cells to chemical agent to be tested for anti-neoplastic activity, and determining a change in expression of a gene of a signature ger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 532 BP; 110 A; 183 C; 113 G; 126 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-188264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   carcinoma, papillary carcinoma and Wilm's tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AVAL-) AVALON PHARM.
                1012
                                                240
                                                                                 952
                                                                                                                    180
                                                                                                                                                     892
                                                                                                                                                                                                                          832
                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                             772
                                                                                                                                                                                                                                                                                                                                                712 AACAACATGATATGTGCCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                              _
CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                        AAAGTCATACGCTCCAACTGATCCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                         GCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGT
                                                                                                                                                                                                                                                                                GCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGT 831
                                                                                                                                                                                                                                                                                                                            ## ACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID 2081; 44pp; English.
                                              CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCAGTCGGCTGAA
                                                                                                                                                                                       GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                         GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                  AMAGICATACGCICCAACIGATCCAGATGCIACGCICAGCIGATCCAGATGTTATGCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Augustus M, Weaver Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-237606P.
2000US-237608P.
2000US-244867P.
2000US-245084P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-237316P.
2000US-237425P.
2000US-237598P.
2000US-237604P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-237278P.
2000US-237294P.
2000US-237295P.
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               35.0%;
99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Carter
                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                             Score 508.4; DB Pred. No. 6e-106; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>გ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ebner
                                                                                                                                                                                                                                                                                                                                                                                                                              DB 24; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ,
,
                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ច
                                                                                                                                                                                                                                                                                                                                                                                                                                  532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Horrigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene set
                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
```

CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC

1071

299

359

179

891

239 951 120

```
RESULT 9
ABL67277
IDL 6727
IDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
05-JUN-2000; 2000US-209473P.
05-JUN-2000; 2000US-2094331P.
18-SEP-2000; 2000US-233133P.
18-SEP-2000; 2000US-234034P.
20-SEP-2000; 2000US-234034P.
20-SEP-2000; 2000US-234953P.
22-SEP-2000; 2000US-234953P.
25-SEP-2000; 2000US-234953P.
25-SEP-2000; 2000US-235802P.
25-SEP-2000; 2000US-235802P.
25-SEP-2000; 2000US-235280P.
25-SEP-2000; 2000US-235280P.
25-SEP-2000; 2000US-235280P.
25-SEP-2000; 2000US-235280P.
26-SEP-2000; 2000US-2355280P.
26-SEP-2000; 2000US-235521P.
27-SEP-2000; 2000US-235521P.
27-SEP-2000; 2000US-23563P.
28-SEP-2000; 2000US-23563P.
28-SEP-2000; 2000US-23563P.
28-SEP-2000; 2000US-23603P.
28-SEP-2000; 2000US-23603P.
28-SEP-2000; 2000US-23603P.
28-SEP-2000; 2000US-23611P.
29-SEP-2000; 2000US-23611P.
29-SEP-2000; 2000US-236842P.
29-SEP-2000; 2000US-236891P.
02-OCT-2000; 2000US-23773P.
02-OCT-2000; 2000US-237294P.
02-OCT-2000; 2000US-237294P.
02-OCT-2000; 2000US-237294P.
02-OCT-2000; 2000US-237294P.
02-OCT-2000; 2000US-237294P.
02-OCT-2000; 2000US-237425P.
03-OCT-2000; 2000US-237425P.
03-OCT-2000; 2000US-237459P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAY-2001; 2001WO-US10838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid; stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous; cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Thyroid cancer related gene sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABL67277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCCGGTCATCACCCAGCCTCTGA 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; DNA; 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG 113:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCCAGCCTCTGA 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NO:5614.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419
```

```
8
                                                                  뫄
                                                                                                      8
                                                                                                                                        片
                                                                                                                                                                   S
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Simi
Matches 531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes a method (M1) for screening for an canti-neoplastic agent. The method involves exposing cells to a chemical cagent to be tested for anti-neoplastic activity, determining a change in comprises a sequence (S) selected from 8447 sequences (given in ABL61664 comprises a sequence (S) selected from 8447 sequences (given in ABL61664 comprises a sequence (S) selected from 8447 sequences (given in ABL61664 comprises a sequence (S) selected from 8447 sequences (given in ABL61664 comprises a sequence (S) selected from 8447 sequences (given in ABL61664 comprises in in the capture of anti-neoplastic activity. (I) has cytostatic comprises a complex of an anti-neoplastic agent, and can be used for producing a product which can the data collected with respect to the anti-neoplastic agent as a complex of M1, and the data is sufficient to convey the chemical comprises of the agent. M1 can be used in the company of cancer such as colon, breast, stomach, lung, thyroid, company comprises of the segent of the second in the company of the company of the cancer, infiltrating ductal cancer, complex cancer, squamous cell carcinoma, neuroendocrine concertions, papillary carcinoma and Wilm's tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 532 BP; 110 A; 183 C; 113 G; 126 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Screening for anti-neoplastic agent involves exposing cells to chemical agent to be tested for anti-neoplastic activity, and determining a change in expression of a gene of a signature ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-OCT-2000; 2000US-237604P.
03-OCT-2000; 2000US-237608P.
03-OCT-2000; 2000US-237608P.
01-NOV-2000; 2000US-244867P.
01-NOV-2000; 2000US-245084P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; SEQ ID 5614; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-188264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (AVAL-) AVALON PHARM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                        1012
                                       1072
       360
                                                                         300
                                                                                                                                        240
                                                                                                                                                                          952
                                                                                                                                                                                                            180
                                                                                                                                                                                                                                              892
                                                                                                                                                                                                                                                                                                                 832
                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PE,
                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                  _
CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                    CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCCCCACACCTCTAAACATCTCCC
                                                                                                                                   CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCAGTCGGAA
                                                                                                                                                            CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAA
                                                                                                                                                                                                   AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                      GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                           GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                GGCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTGGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                              AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                   CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                  CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                        GGCCCCTGGTCTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                           AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                       AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Augustus M,
Weaver Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35.0%;
ilarity 99.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Carter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 508.4;
Pred. No. 6e-1
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ebner R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 6e-106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Endress G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Horrigan S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                set
                                1131
                                                                                                                                                                     1011
 419
                                                                    359
                                                                                                  1071
                                                                                                                                    299
                                                                                                                                                                                                                                                                         179
                                                                                                                                                                                                       239
                                                                                                                                                                                                                                       951
                                                                                                                                                                                                                                                                                                           168
                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                          831
                                                                                                                                                                                                                                                                                                                                                                                                              60
```

AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 1191

8888	712 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA 771	음 성
XX XX XX	Query Match 35.0%; Score 508.4; DB 24; Length 532; Best Local Similarity 99.4%; Pred. No. 6e-106; Matches 531; Conservative 0; Mismatches 1; Indels 2; Gaps 2;	3 B O
יקי ו	Sequence 532 BP; 110 A; 183 C; 113 G; 126 T; 0 other;	SS
77	techniques.	¥88
	and proteins in tumour cells. The collection of	388
Y PI	with (III) or (II). (III) is useful in design and preparation of riboryme molecules for inhibiting expression of the tumour polymentides	388
PA	(III) and/or (II) is useful for stimulating and/or expanding T cells specific for an ovarian tumour motern commission contacting T cells	388
YX	patient, where the amount of polynucleotide hybridising to (IV) is detected preferably by polynerase chain reaction (PCR). (I) comprising	888
34	amount of polynucleotide hybridising to (IV) and comparing the amount to	388
Z P	sample preferably serum or ovarian tissue. The method comprises contacting a biological sample from a patient with (IV), detecting the	88
XX Nd	 has cytostatic activity. An oligonuclectide (IV) that hybridises to can be used for detecting ovarian cancer in a patient's biological 	ឧ
%X %X	ABL87934, (III) encoding (II) having a sequence (S2), a T cell population of (II), or antigen presenting cells that express (II).	នន
X Z	polypeptide encoded by a polynucleotide (III) having a cDNA sequence (S1) from the 10912 nucleotide sequences as given in ABL77023 to	ឧឧ
XX	C The present invention describes a composition (I) comprising: carriers and immunostimulants; and a polypeptide (II) of a ovarian tumour	88
XX	Claim 1; SEQ ID 5534; 489pp; English.	88
XX AC		ΧĄ
X I AB	Composition for therapy and diagnosis of ovarian cancer comprising polypeptide of a ovarian tumor polypeptide, polyneptide encoding polypeptide, antibody specific to polypeptide or T cell expressing	LAL
RE		XX
da	Algate PA, Harlocker SL, Jones R;	X P
ν2ο	(CORI-) CORIXA CORP.	X P
Db	25-MAY-2000; 2000US-207484P.	X B
Ş	29-MAY-2001; 2001WO-US17756.	X P
дь	06-DEC-2001.	X 8 :
γQ	W0200192581-A2.	X Z
ДЬ	Homo sapiens.	× 8
γQ	Human; ovarian cancer; ovarian tumour; cytostatic; gene; ss.	233
da	Human ovarian cancer related cDNA clone SEQ ID NO:5534.	4 8
γQ	17-MAY-2002 (first entry)	X H
dg dg	ABL82556;	గిర్
S S	ABL82556 standard; cDNA; 532 BP.	495
Дb	RESULT 10	RES
β	0. 000000110010000100.000000100011001000000	ξ
뭥	1192 GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCCCCCCCC	3 5
O,	420 AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 479	문

```
RESULT 11
ABL82657/c
ID ABL82657 standard; cDNA;
                                                                                                                                    Composition for therapy and diagnosis of ovarian cancer comprising polypeptide of a ovarian tumor polypeptide, polynucleotide encoding polypeptide, antibody specific to polypeptide or T cell expressing polypeptide -
The present invention describes a composition (I) comprising: carriers and immunostimulants; and a polypeptide (II) of a ovarian tumour polypeptide encoded by a polynucleotide (III) having a cDNA sequence (SI) from the 10912 nucleotide sequences as given in ABL77023 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                 Claim 1; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                     06-DEC-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; ovarian cancer; ovarian tumour; cytostatic; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABL82657;
                                                                                                                                                                                                                                        WPI; 2002-122075/16.
                                                                                                                                                                                                                                                                            Algate PA,
                                                                                                                                                                                                                                                                                                                                                      26-MAY-2000; 2000US-207484P
                                                                                                                                                                                                                                                                                                                                                                                            29-MAY-2001; 2001WO-US17756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200192581-A2.
                                                                                                                                                                                                                                                                                                                   (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ovarian
                                                                                                                                                                                                                                                                                                                   CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAGTTACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTG 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTTGCCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCCCTCCACACCCTCTAAACATCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCGCGCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCAGTCGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCAGTCGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTGGTGGCAAAGGTTTATTCCAGAGAGAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA
                                                                                                                                                                                                                                                                            Harlocker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer
                                                                                                 5635; 489pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              related cDNA clone
                                                                                                                                                                                                                                                                            SL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              454
                                                                                                                                                                                                                                                                            Jones R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO:5635.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      239
```

```
ABL82374
IID ABL6
XX
AC ABL6

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cc (still can be used for detecting ovarian cancer in a patient's biological contacting a biological sample preferably serum or ovarian tissue. The method comprises cc contacting a biological sample from a patient with (IV), detecting the cancer in the cc amount of polynucleotide hybridising to (IV) and comparing the amount of polynucleotide hybridising to (IV), detecting the cc apredetermined cutoff value and thereby detecting ovarian cancer in the cc patient, where the amount of polynucleotide hybridising to (IV) is constituted by polymerase chain reaction (PCR). (I) comprising cc (III) and/or (II) is useful for stimulating and/or expanding T cells specific for an ovarian tumour protein comprising contacting T cells cwith (III) or (II). (III) is useful in design and preparation of cribozyme molecules for inhibiting expression of the tumour polypeptides and proteins in tumour cells; and to isolate a full length gene from a cc suitable library e.g., a tumour cDNA library using well known
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 449;
                                                                                                                                                                                                                  Human ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABL87934, (III) encoding (II) having a sequence (S2), a T cell population of (II), or antigen presenting cells that express (I) has cytostatic activity. An oligonucleotide (IV) that hybr
                                WO200192581-A2
                                                                                                                                                                                                                                                                               17-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                    ABL82374 standard; cDNA; 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30
                                                                                                                                                 ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTATGATATAACATGTGTATGTAAATCTT 1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCATCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTC 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATC 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATC 981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAG 1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACT 122:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGCAAAGGTTTATTCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAG 116:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAG 1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTCTGCCACTCCCTGCTGTGTGACTTTGGGCAAGCCAAGTGCCCCTCTCTGAACCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACT 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCGCCCTCCACACCTCTABACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCAT 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30.8%;
nilarity 99.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                               cancer related cDNA clone SEQ ID NO:5352.
                                                                                                                                                    cancer; ovarian tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    118 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 448.4; DB 24; Length 454; Pred. No. 2.5e-92; O; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                    cytostatic; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (II)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
The present invention describes a composition (I) comprising: carriers CC and immunostimulants, and a polypoptide (II) of a ovarian tumour CC polypeptide encoded by a polynuclectide (III) having a cDNA sequence CC (S1) from the 10912 nucleotide sequences as given in ABL77023 to CABL87934, (III) encoding (II) having a sequence (S2), a T cell CC (I) has cytostatic activity. An oligonuclectide (IV) that hybridises to CC (S1) can be used for detecting ovarian cancer in a patient's biological CC (S1) can be used for detecting ovarian cancer in a patient's biological CC sample preferably serum or ovarian tissue. The method comprises CC contacting a biological sample from a patient with (IV), detecting the cC amount of polynuclectide hybridising to (IV) and comparing the amount to capatient, where the amount of polynuclectide hybridising to (IV) is CC detected preferably by polymerase chain reacting ovarian cancer in the CC specific for an ovarian tumour protein comprising contacting T cells CC with (III) or (II) is useful for stimulating and/or expanding T cells CC with (III) or (II) is useful for stimulating and/or expanding T cells CC with (III) or (II) is useful for stimulating and preparation of CC and proteins in tumour cells; and to isolate a full length gene from a cutable library e.g., a tumour CDNA library using well known CC techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Composition for therapy and diagnosis of ovarian cancer comprising polypeptide of a ovarian tumor polypeptide, polynucleotide encoding polypeptide, antibody specific to polypeptide or T cell expressing polypeptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-MAY-2001; 2001WO-US17756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID 5352; 489pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-122075/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-MAY-2000; 2000US-207484P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Harlocker
```

Sequence 449 BP; 93 A, 160 Ç 90 G; 106 T; 0 other;

Query Match Best Local Similarity

30.8%;

24; Length

449;

Matches 1110 1050 301 241 990 181 930 121 870 910 750 448; 61 ,_ TGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAG TCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCC 1109 CAAATACACGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCC CTCGTGGGGTGTTTACCCCTGTGGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTG CCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCCTCCAAGGCATCCT TCTTCCTCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCC AGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCC CARATACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCC CTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTG CCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCT TCTTCCTCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCC Conservative ç, Score 447.4; DB 2 Pred. No. 4.2e-92; 0; Mismatches 1 ۲, Indels 0 Gaps 1049 869 809 1169 300 240 989 180 929 60 360 120 0

밁 Ş 맑 Š 片 Ş 片 S 몆 б

RESULT 13 ABL79800/c ABL79800/c XX ABL79800/c XX ABL79800; XX XX ABL79800; XX
13 10/c L79800 standard, cDNA; 470 BP. L79800; -MAX-2002 (first entry) man ovarian cancer related cDNA clone SEQ man; ovarian cancer; ovarian tumour; cytos mo sapiens. 200192581-A2PAY-2001; 2001WO-US17756PAY-2000; 2000US-207484P. ORI-) CORIXA CORP. ORI-) CORIXA CORP. Ggate PA, Harlocker Si, Jones R; I; 2002-122075/16. mposition for therapy and diagnosis of ova lypeptide of a ovarian tumor polypeptide, lypeptide of a ovarian tumor polypeptide, lypeptide of a rotarian tumor polypeptide [II] peptide of a polypeptide [III] peptide immunostimulants; and a polypeptide [III] peptide encoded by a polymucleotide (IIII) immunostimulants; and a polypeptide [III] peptide encoded by a polymucleotide [IIII] peptide encoded by a polymucleotide [IIII] preptide encoding [III) having a sequence plas cytostatic activity. An oligonucleotic plas cytostatic act
13 10/c L79800; L79800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ man; ovarian cancer; ovarian tumour; cytos mo sapiens. 200192581-A2MAY-2001; 2001WC-US17756MAY-2000; 2000US-207484P. ORI-) CORIXA CORP. gate PA, Harlocker Si, Jones R; I; 2002-122075/16. Inpoptide of a ovarian tumor polypeptide, antibody specific to polypeptide, lypeptide, antibody specific to polypeptide, lypeptide and the encoded by a polypucleotide (II) lypeptide encoded by a polypucleotide (III) has buseful from the 10912 nucleotide sequences as a lypeptide of the encoded by a polypucleotide (III) can be used for detecting ovarian tissue. The logical sample from a patien ount of polypucleotide in the constant of polypucleotide (III) can be used for detecting and thereby determined cutoff value and thereby determined cutoff value and thereby detecting a biological sample from a patien ount of polypucleotide in the constant of polypucleotide in the
ABL79800/c ABL79800; 17-MAY-2002 (first entry) 17-MAY-2002 (first entry) Human ovarian cancer related cDNA clone SEQ ID: Human; ovarian cancer; ovarian tumour; cytostat Homo sapiens. W0200192581-A2. 06-DEC-2001; 2001WC-US17756. 26-MAY-2000; 2000US-207484P. (CORI-) CORIXA CORP. Algate PA, Harlocker SL, Jones R; WPI; 2002-122075/16. Composition for therapy and diagnosis of ovarian polypeptide, antibody specific to polypeptide, polypolypeptide of a ovarian tumor polypeptide of polypeptide of a color of the polypeptide of the polypept
ABL79800/c ABL79800 standard; cDNA; 470 BP. ABL79800; 17-MAY-2002 (first entry) Human ovarian cancer related cDNA clone SEQ ID 1 Human ovarian cancer; ovarian tumour; cytostat: Homo sapiens. W0200192581-A2. 06-DEC-2001. 29-MAY-2001; 2001WO-US17756. 26-MAY-2000; 2000US-207484P. (CORI-) CORIXA CORP. Algate PA, Harlocker SL, Jones R; WPI; 2002-122075/16. Composition for therapy and diagnosis of ovariar polypeptide of a ovarian tumor polypeptide, polypeptide - Claim 1; SEQ ID 2778; 489pp; English. The present invention describes a composition (I and immunostimulants; and a polypeptide (III) has cytostatic activity. An oligonucleotide (II) of polypeptide encoded by a polymucleotide (III) has cytostatic activity. An oligonucleotide (S1) can be used for detecting ovarian cancer in sample preferably serum or ovarian tissue. The mand a predetermined cutoff value and thereby detecting antient, where the amount of polymucleotide hybridising to (IV) and a predetermined cutoff value and thereby detecting patient where the amount of polymucleotide hybridising to (IV) and a predetermined cutoff value and thereby detecting patient, where the amount of polymucleotide hybridising to (IV) and a predetermined cutoff value and thereby detecting patient where the amount of polymucleotide hybridising to (IV) and a predetermined cutoff value and thereby detecting patient where the amount of polymucleotide hybridising to (IV) and and thereby detecting patient where the amount of polymucleotide hybridising to (IV) and a predetermined cutoff value and thereby detecting patient where the amount of polymucleotide hybridising to (IV) and and thereby detecting patient where the amount of polymucleotide hybridising to (IV) and the patient where the amount of polymucleotide hybridising to (IV) and the patient where the amount of polymucleotide hybridising to (IV) and the patient where the amount of polymucleotide hybridising to the patient where the amount of polymucleotide hybridising to the patient where the patient where the
ABL79800/c ABL79800 standard; cDNA; 470 BP. ABL79800; 17-MAY-2002 (first entry) Human ovarian cancer related cDNA clone SEQ ID N Human; ovarian cancer; ovarian tumour; cytostati Homo sapiens. W0200192581-A2. 06-DEC-2001. 29-MAY-2001; 2001WO-US17756. 26-MAY-2000; 2000US-207484P. (CORI-) CORIXA CORP. Algate PA, Harlocker SI, Jones R; WPI; 2002-122075/16. (COMPOSITION for therapy and diagnosis of ovarian polypeptide of a ovarian tumor polypeptide, poly polypeptide - ovarian tumor polypeptide or claim 1; SEQ ID 2778; 489pp; English. The present invention describes a composition (I and immunostimulants; and a polypeptide (II) ha (S1) from the 10912 nucleotide sequences as give; polypeptide encoded by a polymucleotide (III) ha (S1) from the 10912 nucleotide sequences as give; ABL87934, (III) encoding (II) having a sequence population of (II), or antigen presenting cells (II) has cytostatic activity. An oligonucleotide (S1) can be used for detecting ovarian cancer in sample preferably serum or ovarian tissue. The m contacting a biological sample from a patient will amount of polymucleotide by a polymide or contacting a biological sample from a patient will amount of polymicleotide by a polymicleotide (IV) and apple from a patient will amount of polymicleotide by a polymicleotide (IV) and apple from a patient will amount of polymicleotide by a polymicleotide (IV) and apple from a patient will amount of polymicleotide by a polymicleotide (IV) and apple from a patient will amount of polymicleotide by a polymicleotide (IV) and apple from a patient will amount of polymicleotide (IV) and apple from a patient will amount of polymicleotide (IV) and apple from a patient will amount of polymicleotide (IV) and apple from a patient will Algorithm and apple from a patien
ABL79800/c ABL79800 standard; cDNA; 470 BP. ABL79800; 17-MAY-2002 (first entry) Human ovarian cancer related cDNA clone SEQ ID N Human; ovarian cancer; ovarian tumour; cytostati Homo sapiens. W0200192581-A2. 06-DBC-2001. 29-MAY-2001; 2001WO-US17756. 26-MAY-2000; 2000US-207484P. (CORI-) CORIXA CORP. Algate PA, Harlocker SL, Jones R; WPI; 2002-122075/16. Composition for therapy and diagnosis of ovarian polypeptide of a ovarian tumor polypeptide, poly polypeptide, antibody specific to polypeptide or polypeptide and a polypeptide or polypeptide and a polypeptide (III) has from the 10912 nucleotide sequences as give, ABL87934, (III) encoding (III) having a sequence (S1) has cytostatic activity. An oligonucleotide (II) has cytostatic activity. An oligonucleotide (S1) can be used for detecting ovarian cancer in
13 13 16/c 17/9800 stal 17/9800; -MAY-2002 mman ovarian man; ovarian man; ovarian 02/00192581-/ -DEC-2001; -MAY-2000; -MAY-2000; -ORI-) CORIX Gate PA, FI 1; 2002-122 17/peptide c 1/ypeptide c 1/ypeptide c 1/ypeptide e
13 10/c 10/c 10/c 11/9800 stal 11/9800; -MAY-2002 mman ovarian man; ovarian mo sapiens 200192581-j -DEC-2001; -MAY-2001; -MAY-2000; ORI-) CORIV Gate PA, H I; 2002-122 I; 2002-122 I; 2002-122 I; 2002-122 I)ypeptide llypeptide llypeptide llypeptide llypeptide llypeptide
13 10/c 1179800 stal 1179800; -MAY-2002 mman ovarian mman; ovarian man; ovarian 0200192581-/ -DEC-2001MAY-2000; -MAY-2000; -MAY-2000; ORI-) CORIX gate PA, H 1; 2002-122 mmposition f 1/poptide c 1/poptide
13 10/c 1179800; 1279800; -MAY-2002 mman ovarian mman; ovarian man; ovarian mao sapiens 200192581-/ -DEC-2001MAY-2001; -MAY-2000; ORI-) CORI) gate PA, I I; 2002-122
13 10/c L79800; L79800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens. 200192581-A2DEC-2001DEC-2001MAY-2000; 2001WO-US17756MAY-2000; 2000US-207484P. ORI-) CORIXA CORP. gate PA, Harlocker SL, Jones R;
13 10/c 11/2800 standard; cDNA; 470 BP. 11/9800; 1-MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens. 200192581-A2. 200192581-A2DEC-2001MAY-2000; 2001WO-US17756MAY-2000; 2000US-207484P. ORIA CORIXA CORP.
13 10/c L79800 standard; cDNA; 470 BP. L79800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens. 200192581-A2DEC-2001DEC-2001; 2001WO-US17756.
13 10/c L79800 standard; cDNA; 470 BP. L79800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens. 200192581-A2DEC-2001; 2001MO-US17756.
13 10/c 11/9800 standard; cDNA; 470 BP. 11/9800; 17/9800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens. 200192581-A2DEC-2001.
13 10/c 1179800 standard; cDNA; 470 BP. 1179800; 1179800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens. 200192581-A2.
13 10/c L79800 standard; cDNA; 470 BP. L79800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat mo sapiens.
13 10/c L79800 standard; cDNA; 470 BP. L79800; -MAX-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID man; ovarian cancer; ovarian tumour; cytostat
13 10/c 11/2 12/9800 standard; cDNA; 470 BP. 12/9800; -MAY-2002 (first entry) man ovarian cancer related cDNA clone SEQ ID
13 10/c 1179800 standard; cDNA; 470 B 1179800; -MAY-2002 (first entry)
13 10/c L79800 standard; cDNA; 470 B
13 10/c %L79800 standard; cDNA; 470 B
Qy 1170 CCGGTCATCACCCAGCCTCTGAGAGCAGT 1198

```
RESULT 14
ABL79803/c
ID ABL79803;
XX ABL79803;
XX ABL79803;
XX ABL79803;
XX ABL79803;
XX ABL79803;
XX Human ova;
XX Human; ov;
XX Human; ov;
XX Human; ov;
XX Homo sapid
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   융
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                            Claim 1; SEQ ID 2781; 489pp; English.
                                                                                                                                                                                                                                                                                                       Composition for therapy and diagnosis of ovarian cancer comprising polypeptide of a ovarian tumor polypeptide, polynucleotide encoding polypeptide, antibody specific to polypeptide or T cell expressing polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-122075/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAY-2000; 2000US-207484P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAY-2001; 2001WO-US17756.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-DEC-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200192581-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; ovarian cancer; ovarian tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human ovarian cancer related cDNA clone SEQ ID NO:2781.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL79803;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1393 TTAACACAGTIGGGTGAGTICTGACTAAAGGTTACCTGTTGTCGTGAAA 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1034 CARACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCT 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1094 ATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGTGGCAAAGGTTTATTC 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; cDNA; 468 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTAACACAGTGGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGAGGAGACTATGATATAACATGTGTATGTAATCTTCATGGTGATTGTCATGTAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAGGAGACTATGATATAACATGTGTATGTAAATCTTCAT-GTGATTGTCATGTAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTT 1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTGACTTCCTCTGCCACTCCCTGCTGTGTGACTTT-GGCAAGCCAAGTGCCCTCTCTG 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCA 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCA 1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Harlocker SL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytostatic; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291
```

The present invention describes a composition (I) comprising: carriers and immunostimulants; and a polypeptide (II) of a ovarian tumour polypeptide encoded by a polymucleotide (III) having a cDNA sequence (S1) from the 10912 nucleotide sequences as given in ABL77023 to ABL87934, (III) encoding (II) having a sequence (S2), a T cell population of (II), or antigen presenting cells that express (II). (II) has cytostatic activity. An oligonucleotide (IV) that hybridises to (S1) can be used for detecting ovarian cancer in a patient's biological

```
RESULT 15
ABL82197/c
ID ABL82
XX ABL82
AC ABL82
XX 17-MA
XX Human
XX Human
XX Human
XX Homo
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Sim
Matches 450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sample preferably serum or ovarian tissue. The method comprises contacting a biological sample from a patient with (IV), detecting the amount of polynucleotide hybridising to (IV) and comparing the amount to a predetermined cutoff value and thereby detecting ovarian cancer in the patient, where the amount of polynucleotide hybridising to (IV) is detected preferably by polymerase chain reaction (FCR). (I) comprising (III) and/or (II) is useful for stimulating and/or expanding T cells specific for an ovarian tumour protein comprising contacting T cells with (III) or (II). (III) is useful in design and preparation of ribozyme molecules for inhibiting expression of the tumour polypeptides and proteins in tumour cells; and to isolate a full length gene from a suitable library e.g., a tumour CDNA library using well known
                                                                                                                                                                                                                                                                                                                                          Human; ovarian cancer; ovarian tumour; cytostatic; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABL82197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 468 BP; 118 A; 92 C; 152 G; 106 T; 0 other;
                                        29-MAY-2001; 2001WO-US17756
                                                                                                                    06-DEC-2001.
                                                                                                                                                                                                                                                                                                                                                                                                              Human ovarían cancer related cDNA clone SEQ ID NO:5175.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL82197 standard; cDNA; 399 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1342 ACTATGATATAACATGTGTATGTAAATCTTCA 1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                392 GTCCATCCTCTCCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCACTGTTCAAACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGGTCACCCAACCTGACT 122:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTC 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAG 1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAG 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCGCCTCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCAT 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAG 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTCTGCCACTCCCTGCTGTGTGACTTT-GGCAAGCCAAGTGCCCCTCTCTGAACCTCAG 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAG 128:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGGTGGCGAAAGGTTTATTCCAGAGAAG 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCGCCTCCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 438.4; DB 24; Length 468; pred. No. 4.7e-90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             981
```

```
밁
                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                        8
                                                                                                                                           밁
                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes a composition (I) comprising: carriers CC and immunostimulants; and a polypeptide (II) having a cDNA sequence CC polypeptide encoded by a polynucleotide (III) having a cDNA sequence CC (S1) from the 10912 nucleotide sequences as given in ABL77023 to CABL87934, (III) encoding (II) having a sequence (S2), a T cell CC population of (II), or antigen presenting cells that express (II). CC (I) has cytostatic activity. An oligonucleotide (IV) that hybridises to CC (S1) can be used for detecting ovarian cancer in a patient's biological sample preferably serum or ovarian tissue. The method comprises CC contacting a biological sample from a patient with (IV), detecting the CC amount of polynucleotide hybridising to (IV) and comparing the amount of polynucleotide hybridising to (IV) is CC detected preferably by polymerase chain reaction (PCR). (II) cannoer in the CC patient, where the amount of polynucleotide hybridising to (IV) is CC detected preferably by polymerase chain reaction (PCR). (I) comprising CC (III) and/or (II) is useful for stimulating and/or expanding T cells competific for an ovarian tumour protein comprising contacting T cells considered to the contactine of the tumour polypeptides cand proteins in tumour cells; and to isolate a full length gene from a contactinues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Composition for therapy and diagnosis of ovarian cancer comprising polypeptide of a ovarian tumor polypeptide, polynucleotide encoding polypeptide, antibody specific to polypeptide or T cell expressing polypeptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 399 BP; 106 A; 86 C; 110 G; 97 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID 5175; 489pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-122075/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAY-2000; 2000US-207484P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1106 TGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1046 GCCCTCCACACCTCTAAACATCTCCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTC 1105
                                                                                                                                                                                         1286
                                                                                                                                                                                                                                                                                                                                                                               1166 GAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCT 125
1405 GIGGIGAGIICTGACIMAAGGIIACCIGIIGICGIGAAA 1443
                                                                                           1346 TGATATAACATGTGTATGTAAATCTTCAT-GTGATTGTCATGTAAGGCTTAACACAGTGG 1404
                                                                                                                                                                                                                                                                                    1226 CTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                             339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          399
                                                                                                                                                                                                                                      219
                                                99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCTCCACACCTCTAAACATCTCCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTC 340
                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAG
                                                TGATATAACATGTGTATGTAAATCTTCATGGTGATTGTCATGTAAGGCCTTAACACAGTGG
                                                                                                                                           CTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTA 100
                                                                                                                                                                    CTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTA 1345
                                                                                                                                                                                                                                         CTGCCACTCCCTGCTGTGTGACTTTGGGCCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTC
                                                                                                                                                                                                                                                                                                                               GAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Harlocker SL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 383.8; DB 2
Pred. No. 1.1e-77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 24; Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>سر</u>
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
```

1285 160

40

220

Job time : 430 secs

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic -
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BG
BG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenEmbl:*
1: gb_ba:
2: gb_htg:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       November 25, 2003, 04:52:28; Search time 5442 Seconds (without alignments) 10930.282 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-021-368-2
1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2888711 seqs, 20454813386 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gb_om:*
gb_ph:*
gb_ph:*
gb_ph:*
gb_ph:*
gb_pr:*
gb_rc:*
gb_sv:*
gb_sv:*
gb_sv:*
gb_sv:*
gb_nn:*
em_bn:*
em_bn:*
em_in:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                  em_pat:*
em_ph:*
em_ph:*
em_ph:*
em_ro:*
em_ro:*
em_ro:*
em_ro:
em_htg_hum:*
em_htg_nus:*
em_htg_nus:*
em_htg_pln:*
em_htg_pln:*
em_htg_pln:*
em_htg_rod:*
em_htg_vrt:*
em_htg_vrt:*
                em_htgo_hum:*
em_htgo_mus:*
em_htgo_other:*
                                                                                                                                                                                                                                               em_om:*
em_or:*
em_ov:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5777422
```

S,

the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

RESULT 1 ARO00484 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES	000000 00000 00000 00000 00000 00000 0000
	11454 11454 11454 11454 11454 11454 663.1 663.3 663.3 663.3 663.3 663.3 663.3 663.3 663.3 663.3 663.3 7663.3 10763.4 10763.4 1164 1164 1164 1164 1164 1164 1164
TE ST	100.00 10
rom 31:3 7363	1454 1454 1454 11454 11454 1542 1590000 200000 200000 200000 200000 200000 200000 200000 200000 396647 396 396 396 396 396 1106 1106 1106 1158 11181 1181 1181 1181 1192 11204
Q 1, 4 3 ξ	₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩
1454 bp US 5736377.	ARONOMARA ARONOM
DNA lin	
sar PAT 04	AR000484 AR062140 AR119561 AR119561 AR7024605 BC002710 AR360072 AC130782 AC14096 BC0021100 AC331169 AC073185 AC331178 BC002100 AC335105 BC002100 AC335105 AC333178 AC333178 AC333178 BC002100 AC3334883 AX3334883 AX3334883 AX408348 AX3334883 AX6152173 AX198293 AX1982
04-DEC-199	Sequence Sequence Sequence Homo sapi Sequence

```
Дd
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                    δ
                                       g
                                                      Ş
                                                                       밇
                                                                                    Ś
                                                                                                       g
                                                                                                                     S
                                                                                                                                      皮
                                                                                                                                                     S
                                                                                                                                                                       g
                                                                                                                                                                                    Š
                                                                                                                                                                                                      멼
                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                 먕
                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Sim
                        106
                                                                                                                                                                                      601
                                       841
                                                                                      781
                                                                                                                                       661
                                                                                                                                                      661
                                                                                                                                                                       601
                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                       781
                                                                                                       721
                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                  GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGGCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                       CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                      ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACATG
                                                                                                                                                                                                    GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                          GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCCACCTCCACCTCTCGCCCCCTCTGGC
                                                                                                                 ATATGTGCTGGACTGGACCGGGGCCAGGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                            GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGGCCCCGCGTC
                                                                                                                                                                                                                                                                             CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                            CGCGGCTCGCAGCCCTGGCAGGTCTCCGCTCTTCAACGGCCTCTCCGTTCCACTGCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                    CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                  CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
                                                                                                       ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                       TGGGGCACCACGGCCCGGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1454; DB 6; ilarity 100.0%; Pred. No. 1.5e-292; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .1454
/organism="unknown"
a 481 c 377 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        п
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                       840
                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                       900
                                                       900
                                                                                     840
                                                                                                       780
                                                                                                                     780
                                                                                                                                      720
                                                                                                                                                     720
                                                                                                                                                                      660
                                                                                                                                                                                     660
                                                                                                                                                                                                    600
                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                            JOURNAL
FEATURES
                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                  KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                   RESULT 2
AR062140
LOCUS
          Ş
                             В
                                            S
                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      몺
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                              밁
                                                                           S
                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
121
              121
                              13
                                             61
                                                                                                                                                                                                                  Unknown
                                                                                                                                                                                                                           Unknown
                                                                                                                                     289
```

```
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1454; Conservative (
                                                                                                                                                                                                                                                                                    Band, V.

Methods for identification of modulatory expression of the NES1 protein expression of 54,42 01-DEC-1998;

Patent: US 5843694-A 2 01-DEC-1998;

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AR062140 1454 bp
sequence 2 from patent US 5843654.
AR062140
AR062140.1 GI:5989831
                                                                                                                                                                                                                                                                                                                                                                                              Unclassified.
GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCCT
                                                                                                                    GTCATGTAAGGCTTAACACAGTGGGTGGTGATGTCTGACTAAAGGTTACCTGTTGTCGTG 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCGCCTCTGGC
                                                                           AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CIGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAAGGITTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 1454)
                                                                                                                                                                                                                                                             ø
                                                                                                                                                                                                                                                          1. .1454
/organism="unknown"
a 481 c 377 g
                                                                                                                                                                                 0,
                                                                                                                                                                                Score 1454; DB 6;
Pred. No. 1.5e-292;
); Mismatches 0;
                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                             сt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                    compounds
                                                                                                                                                                                                             Length 1454;
                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT 29-SEP-1999
                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                 0
```

QY 421 CGCTCTGTTGTCCATCCCAAGTACCACCACGGCTCAGGCCCATCCTGCCAAGGCGAACG 480		1201 CTGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA 1260	B 8
Oy 361 GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT 420		1141 CARAGETTRATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA 1200 	B 8
Oy 301 GICCIGGIGGACCAGAGITGGGIGCIGACGGCCGCGCACTGCGGAAACAAGCCACTGIGG 360 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	·	1081 CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG 1140 	B 8
Qy 241 CGCGGCTCGCAGCCCTGGCAGGTCTCCGCTCTTCAACGGCCTCTCCTCCTCCACTGCCGCGGGT 300		1021 TGTCTGCACTGTTCAAACCTCTGCGGCCCTCCACACCTCTAAACATCTCCCCTCTCACCT 1080 	D 84
OY 181 GCGCTGCTCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG 240		961 CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCCCCAGTCGGCTGAACTCTCCCCT 1020	B &
Qy 121 GCCCGGGCTCTGGCGAAGCTGCTGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGGG 180 121 GCCCGGGCTCTGGCCAAGCTGCTGCCGCTGCTGATGGCGCAACTCTGGGCCGCAGAGGCG 180	i	901 CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC 960	P &
Qy 61 GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC 120		841 CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA 900	B 5
Qy 1 ACCAGCGGCAGACCACAGGCAGGGCAGAGGCACGTCTGGGTCCCCTCCCT		781 GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC 840	음 성
Query Match 100.0%; Score 1454; DB 6; Length 1454; Best Local Similarity 100.0%; Pred. No. 1.5e-292; Matches 1454; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		721 ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG 780	₽ Q
EASE COUNT 289 a 481 c 377 g 307 t ORIGIN		661 ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG 720	라 성
TITLE MES-1 polypeptides, DNA, and related molecules and methods JOURNAL Patent: US 615387-A 2 28-NOV-2000; FEATURES Location/Qualifiers		601 TGGGGCACCACGGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC 660	B &
OVERCE UIRIOWII. ORGANISM Unknown. Companistical. ORGANISM Unclassified. ORGANISM UIRIOWII. ORGANISM UIRIOWII.		541 CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGGCAGGTTGCTGGC 600	유 성
VERSION AR119561 GI:14102260 KEYWORDS U-local		481 GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGGCCCCGCGTC 540	용왕
AR119561		421 CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG 480	B &
UY 1441 AAAAAAAAAAA 1454 Db 1441 AAAAAAAAAAAA 1454		361 GCTCGAGTAGGGATGATCACCTGCTGCTTCTTCAGGGGGAGGACGCTCCGCCGGACGACGACT 420 	B &
1381		301 GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCAAG	B 8
1321 FOTTAGACANGUTYGTGAGGAGACGACTATGATARGACANGTGTARGTGAAARCTTCANGTGATATATARGACANGTGTARGTGAAARCTTCANGTGATATAACANGTGTANGTAAAARCTTCANGTGATATAACANGTGTANGTAAAARCTTCANGTGATATAACANGTGTANGTAAAARCTTCANGTGATATAACANGTGTANGTAAARCTTCANGTGATATAACANGTGTANGTAAARCTTCANGTGATATAACANGTGATATGATAAARCTTCANGTGATATAACANGTGATATGATAAARCTTCANGTGATATAACANGTGATATGATAAARCTTCANGTGATATGATATAACANGTGATATGATGATATAAAARCTTCANGTGATATGATGATATAACANGTGATATGATGATATGAT		241 CGCGGCTGGCAGGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT 300	함 성
1261 AGTGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC		181 GCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCG 240 	B &

RESULT 3 AR119561 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS	dg dg	νQ	da	Q	dd	QV	DB C	Qy
AR119561 1454 bp DNA linear PAT ON Sequence 2 from patent US 6153387. N AR119561.1 GI:14102260 Unknown. SM Unknown. SM Unclassified. SB Band,V.	1441 AAAAAAAAAAAAA 1454	1441 AAAAAAAAAAAA 1454	1381 GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTG	1381 GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG	1321 TCTTAGACATGTTGTGAGGAGACTATGATATAACATGTGTATGTA	1321 TCTTAGACATGTTGTGAGGAGACTATGATATAACATGTGTATGTA	1261 AGTGCCCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC	1261 AGTGCCCTCTGTGAACCTCAGTTTCCTCATCTGCAAAATGGGGAACAATGACGTGCCTACC
16-MAY-2001			GTCGTG 1440	TCGTG 1440	 GATT 1380	TGATT 1380	TACC 1320	TACC 1320

```
RESULT 4
AF024605
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                         ď
                                                                         á
                                                                                              В
                                                                                                              Š
                                                                                                                                   용
                                                                                                                                                     Ś
                                                                                                                                                                          8
                                                                                                                                                                                           Ş
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
  DEFINITION
                                                         1441
                                                                         1441
                                                                                                                1381
                                                                                                                                                     1321
                                                                                                                                                                         1261
                                                                                                                                                                                            1261
                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                              106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
  Homo
          AF024605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAAAAAAAAAAAA
||||||||||||||||
                                                                                              GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                                                                                                                                                                    CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTGTGAGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTTGCTAGCTGCTGGC
                                                          aaaaaaaaaaaa
                                                                                                                                                                         CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                          CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                             TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                     CAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCCCCAGTCGGCTGAACTCTCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                         CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCCCAGTCGGCTGAACTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                             CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                      CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                         CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGGCACCACGGCGCCGCAGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
4605
sapiens serine protease-like
                                                                           . 1454
                                                          1454
 mRNA linear
protease (nes1)
  mRNA,
          PRI
         19-0CT-2000
                                                                                                                                                                                            1320
                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                  1260
                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                1440
                                                                                                                                   1380
                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                               1440
                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
FEATURES
        S
                           뭐
                                         Ş
                                                                皮
                                                                                 Ś
                                                                                                      В
                                                                                                                      Ş
                                                                                                                                            밁
                                                                                                                                                              Ş
                                                                                                                                                                                  문
                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                      Query Match
Best Local Sim
Matches 1454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                    Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
          301
                           241
                                              241
                                                                 181
                                                                                                       121
                                                                                                                         121
                                                                                   181
                                                                                                                                             61
                                                                                                                                                               61
                                                                                                                                                                                 ,_
                                                                                                                                                                                                     н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96320486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases
                                                                                                                                                                                                                                                                       289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                      Ø
                                                                                                                                                                                                                                                                                                                                                                                                                               /cell
```

```
Submitted (11-SEP-1997) Radiation Oncology, New England Medical Center Hospital, Tuffs University School of Medicine, NEMC #824
750 Washington St., Boston, MA 02111, USA
On Oct 19, 2000 this sequence version replaced gi:1835924.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 (bases 1 to 1454)
Liu,X.-L., Wazer,D.E.,
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Iiu,X.I., Wazer,D.E., Watanabe,K. and Band,V. Identification of a novel serine protease-like gene, the expression of which is down-regulated during breast cancer progression Cancer Res. 56 (14), 3371-3379 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cds.
AP024605 S82666
AF024605.1 GI:2558911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h 100.0%;
Similarity 100.0%;
54; Conservative 0
                                                                                                                                                                                                                                                          GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
GTCCTGGTGGACCAGAGTTGGGTGCTGACCGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                            GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC
                                                                                                 CGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTCAACGGCCTCTCGCTTCCACTGCGCGGGT
                                                                                                                                                                                            GCGCTGCTCCCCCAAAACGACACGCGCTTTGGACCCCGAAGCCTATGGCGCCCCCGTGCGCG
                                                                                                                                                                                                                                                                                                                      GGCGACTCCCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                        GCCCGGGCTCTGGCGAAGCTGCTGCCGCTGATGGCGCAACTCTGGGCCGCAGAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /translation="mraphlhlsaasgaralakllellmaglmaaballpqndtrldebaysgarglation="mraphlhlsaasgaralakllellmaglmarbaysqubhllebaysgarglation="mraphlhlsaasgarglydgswyltaahsgubhlklydgybyllgggltritisvyhgsgeilprrthabydgbblhlklyarpvybgbryraldlypyrgagpgglydyagwgytharrykkgltcssiiilsbkbcbyfybgvytnnmicaglyrgagpdeggbbggbryvcdetlggilswgvypcgsaghbavytqickymswinkvirsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="serine protease-like
/protein_id="AAB81602.1"
/db_xref="GI:2558912"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82. .912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db xref="taxon:9606"
/cell_line="76N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="nes1"
/note="NES1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="nes1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 to 1454)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . .1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ell_type="mammary epithelial"
.1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           377 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1454;
Pred. No. 1.5
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watanabe, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; DB 9;
1.5e-292;
es 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Band
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ≷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                        300
                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                  240
                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                        60
                        360
                                                                  300
                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

밁

정 음 정 음 정

밁

```
1081
                                                                                                                           1321
                                                                                                                                                                     1261
                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                         GTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAGGTTACCTGTTTGTCGTG 1440
                                                                                                                                                                                                                                                                                CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCCCCAGTCGGCTGAACTCTCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCCTGGATCAATAAAGTCATA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACCT
GTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTTCTGACTAAAGGTTACCTGTTGTCGTG
                                                                                                               AGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACC
                                                                                                                                                                                                                                                         CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCA
                                                                                                                                                                                                                                                                                                                                           CAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                       CAANGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCCTCTCACCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGATECCCAGAGGCTCCATCGTCCATCCTCTCCTCCCAGTCGGCTGAACTCTCCCCT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTATCCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGCACCACGGCCGCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGAGCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCCGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCGAGTAGGGGATGATCACCTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                   CATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGGAAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCTCTGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCATCCTGCCAAGGCGAACG
                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                 1380
                                                                                                                         1380
                                                                                                                                                                1320
                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
```

Ş

β & δ

성 유

8 8 8 8 8 8

8 8 8

멼

Ş

밁

Ś

밁

Ď,

5 B 5 B

밁

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
BC002710
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1441 AAAAAAAAAAAAA 1454
||||||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/ILNL at: http://image.llnl.gov Series: IRAL Plate: 12 Row: a Column: 24
This Clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4506156.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: nisc mgc@nhgri.nih.gov
Shevchenko,Y., Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Shevchenko,Y., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Dietrich,N.L., Guan,X., Gupta,J., Ho.S.-L., Karlins,B., Legaspi,R.,
Lim,M., Maduro,Q.L., Masiello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaitherehore Management
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (05-FEB-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ă
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BC002710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhang, L.-H. and Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC002710.1 GI:12803744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAAAAAAAAAA 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 1542)
                           Ø
                                                                          /protein_id="AAH02710.1"
/db_xref="G1:12803745"
/db_xref="G1:12803745"
/tablat.on="Washelhikisaasgaralakilepilmaqimaasaalleqndtrld
/tablatacon="Washelhikisaasgaralakilepilmaqimaasqaddhil
paaygapcargsqpmqvslfnglsfhcagvlvdqswvltaaahcgnkplmarvgddhil
llqqsbcjlrrttrsvvhfkyhqqssgpilfrg111spkclevfypqvstalqlpy
RCAqbedCqcyngmq77aarvkylmg21cgs111lspkclevfypqvrtynnv1cqst
RCAqbedCqsbsggplvCdb71lq31lsmgvypcGsaqhpavyTq1ckynswlnkvIrsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:9606"
/clone="MGC:3667 IMAGE:3632557"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="LocusID:5655"
                                                                                                                                                                                                                                                                               product="kallikrein 10"
                                                                                                                                                                                                                                                                                                                                                             /note="Vector: pols7"
                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="Utexys, endometrium adenocarcinoma"
/clone_Ib="NJH_MGC_44"
/lab_host="DH10B-R"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                           codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1542 bp mRNA linear PRI 12-JUL-2 kallikrein 10, clone MGC:3667 IMAGE:3632557, mRNA,
                                                                                                                                                                                                                                                                                                                                          .1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                http://www.nisc.nih.gov/
                        404 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRI 12-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
```

00 VQ	1026 GCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCCCTCTCACCTCATTC 1085	y Qq
라 양	CCTTGTCT	Db
DЬ	966 GCCCAGAGGCTCCATCGTCCATCCTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCT 1025	Q
Qy	906 CAACTGATICCAGATGCTACGGCTCCAGCTGATCCAGATGCTTATGCTCCTGCTGATCCAGAT 965	g 49
D .5	93 TCCAGCTGTCTACACCCAGATCTGCAAAATACATGTCCTGGATCAATAAAGTCATAACGCTC	당
₹ 5	846 TCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATACGCTC 905	γŞ
YQ.	986 IGACGAGACCCICCAAGGCAICCICTGGGGGTGTTTACCCCTGTGGCTCTGCCCAGCA 845	90
₽ \$	73 TGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTG	D D
Mat	726 TGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTG 785	Ş
Queri	666 CCTGAGCCCTAAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATG 725	g Qy
BASE C	753 CACCACGGCCGGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTAT 812	da
	606 CACCACGGCCGCCCGGAGAGTGAAGTACAAGAGGGCCTGACCTGCTCCAGCATCACTAT 665	Qy
FEATURI	693 CCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGCGGG 752	g
	546 CCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGCTG	γQ
TITLE	496 GCACGATCTCATGTTGCTAAAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGC 545	B &
DE PROPE	573 TGTTGTCCATCCCAAGTACCACCAGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGA 632	дb
SOURCE	426 TGTTGTCCATCCCAAGTACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGAACGGAATGA 485	δ
ACCESSI VERSION KEYWORD	500 ASTRIGGEST BATTAL CITETIC LICENCASCICACIT CIGCIGGACGACTCGCTC 425 [III III I	₽ 5
DEFINI	20 OBTORNAL WARE TARGET TARGET CARCAROL CONTROL OF STREET	? 5
RESULT AX3600	06 GGTGGACCAGAGTTGGGTGCTGACGGCGCGCGCACTGCGGAAACAAGCCACTGTGGGCTCG	3 5
Db	393 CTCGCAGCCCTGGCAGGTCTCCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGGTGTCCT 452	Db
Qγ	246 CTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCT 305	γQ
Db	33 GCTCCCCAAAACGACACGCCCTTGGACCCCGAAGCCTATGGCGCCCCGTGCGCGCGC	Db ·
VΩ	86 GCTCCCCAAAACGACACGCCCTTGGACCCCGAAGCCTAIGGCGCCCCCGTGCGCGCGCGG	Ş
מם	126 GECTETGGCGAAGCTGCTGCCGCTGATGGGGCAAACTCTGGGCCGCAGAGGGGGCGCT 185	B 3
Ov	213 CACGCAGATCCTGGCCATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGCCCC 272	Db
B &	σ.	9
) B &	Query Match 89.5%; Score 1301.6; DB 9; Length 1542; Best Local Similarity 99.7%; Pred. No. 8.6e-261; Matches 1304; Conservative 0; Mismatches 4; Indels 0; Gaps 0;	Query Best Match
ον		

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ERNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SION
                                                                                                                                                                                                                                                                                                                                                        ches 830;
                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MSIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               jource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SG
                                                                                                                                                                                                                                                                                                                                                                        ocal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    382 CTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCTGTTGTCCCATCCCAAG 441
                                                                           322
                                                                                                                                                                   241
                                                                                                        181 GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG
                                                                                                                                                                                                   202
                                                                                                                                                                                                                                                                                                                         82
                                                                                                                                                                                                                                                                                            Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel protesses
Patent: WO 0200860-A 28 03-JAN-2002;
Sugen, Inc. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX360072 831 bp
Sequence 28 from Patent WO0200860.
AX360072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Plowman,G., Whyte,D., Sudarsanam,S., Manning,G., Caenepeel,S. and Charydczak,G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX360072.1 GI:18675698
                                                                                                                                                                                                                                                                                                                                                   h 57.0%; Score 829.4; DB 6; Similarity 99.9%; Pred. No. 2.1e-162; 30; Conservative 0; Mismatches 1;
                                             GTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGACCAC
                                                             GTGCTGACGGCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGATGATCAC
                                                                                                                          GTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGTGTCCTGGTGGACCAGAGTTGG 321
                                                                                                                                                                                    ATGAGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGCCCCGGGCTCTGGCGAAGCTG 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCTCTGAACCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTA 1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGACTTTGGGCAAGCCAAGTGC 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTGACTTTGGGCAAGCCAAGTGC 1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTACTGGG 1205
                                                                                                                                                                                                                                                                                          ATGAGAGCTCCGCACCTCTCCGCCGCCCTCTGGCGCCCCGGGCTCTGGCGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
287 c 245 g 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
1. .831
                                                                                                                                                                                                                                                                                                                                                                                                                                  153
                                                                                                                                                                                                                                                                                                                                                                                                                                  rt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                 Length 831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT
                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-FEB-2002
                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                    180
                                           300
                                                                          381
                                                                                                                                                                                                261
                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                            60
                                                                                                        240
```

CTGCTGCTTCTTCAGGGCGAGCAGCTCCGCCGGACGACTCGCTCTGTTGTCCATCCCAAG

```
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                 TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 7
AF055481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                  FEATURES
                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Locus
                                                                                                                                                                                                                                                                                                                                                        MEDIINE
                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        442
                                                                                                                                        Direct Submission
Submitted (24-MAR-1998) Pathology and Laboratory Medicine, Mount
Simal Manital. 600 University Avenue, Toronto, Ontario M5G 1X5,
                                                                                                                                                                                               Clin Chem (2000) In press
3 (bases 1 to 5574)
Luo, L.Y. and Diamandis, E.P.
                                                                                                                                                                                                                                                              2 (bases 1 to 5574)
Diamandis, E. P., Yousef, G., Clements, J., Ashworth, L., Yoshida, S., Bigelrud, T., Nelson, P., Shiosaka, S., Little, S., Lilja, H., Stenman, U.-H., Rittenhouse, H. and Wain, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens kallikrein
AF055481 AF036167
                                                                                                                                                                                                                                                                                                                                                                                   Structural characterization and mapping of the normal epithelial cell-specific 1 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 5574)
Luo, L., Herbrick, J.A., Scherer, S.W., Beatty, B., Squire, J. and
                                                                                                                뎡
                                                                                                                                                                                                                                                   New nomenclature for the human tissue kallikrein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AF055481.1 GI:3065710
                                                                                                                                                                                                                                                                                                                                      9647736
                                                                                                                                                                                                                                                                                                                                                                   Biochem. Biophys. Res. Commun. 247 (3),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGGCCCCCTGGTCTGTGACGACGAGACCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACCACCAGGGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCATCCTCTCGTGGGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCCAGGACCCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCTAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCCTAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTAMAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGCCCTGCAGCTTCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTAMAGCTGGCCAGGCCCGTAGTGCCGGGGCCCCGCGTCCGGGGCCCTGCAGCTTCCCTAC
                                                                                             21, 1998 this sequence version 
Location/Qualifiers
            /mol_type="genomic_DN
/db_xref="taxon:9606"
/chromosome="19"
                                              /organism="Homo sapiens"
/mol_type="genomic DNA"
/map="19q13.3-q13.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5574 bp
10 (KLK10)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA linear PR
gene, complete cds.
                                                                                                               replaced gi:2665655
                                                                                                                                                                                                                                                                                                                                                                      580~586 (1998)
                                                                                                                                                                                                                                                  gene family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRI 30-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        501
```

```
á
                                                                                                                                                                                                                                                                                                                    Ś
                                        Ś
                                                                                                               유
                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                                          É
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 686;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ехол
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    promoter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    exon
                                                                                                                                                                                                                                                        4909
                                                                                                                                                                                                                                                                                                                                                                                              4849
                                                                                                                                                                                                                                                                                                                                                                                                                                                             816
                                                                                                                                                                                                                                                                                                                           876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       756 CCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTG 815
                                                                                                                                                                                                                                                                                              CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCCAGATGCTACGCTCCAGCTGA 935
TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCCCCACA
                                                                                                                                                        TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC 995
                                                                                                                                                                                                                                                     CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 4968
                                                                                                                                                                                                                                                                                                                                                                                              GGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATA 4908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1016 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4946. .5474
/gene="KLK10"
a 1802 c 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="PAC 4381"
/clone lib="PAC 1
1994; 6:84-89"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2455.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      translation="mraphihisaasgaralakliplimaqimaaeaalipqndtrid/
peaygapcargsqpmqvsifngisfhcagvivdqsmvitaahcgnkpimarvgddhli
peaygaqirttrsvvhpkyhqgsgfiiprrtdehdimilklarpvvpgprvraiqippy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="kallikrein 10"
join(48. .120,605. .613)
/gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           join(48. 120,605. 701,2455.
4793. 5474)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4793.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGL
DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVXTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product="kallikrein 10"
/protein_id="AAC14266.1"
/db_xref="GI:3065711"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /number=6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'gene="KLX10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1195. .4328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mumber=5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     number=4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        589. .3863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="normal epithelial cell-specific 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="NES1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          number=3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oin(614. .701,2455. .2635,3589. .3863,4195.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47.28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .5474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .2635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 686; DB 9; Logical Score 686; DB 9; Logi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              library of Ioannou et al. Nature Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1329 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .2635,3589. .3863,4195. .4328,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 5574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .4328,4793. .4945)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                        . 1055
                                                                                                               5028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4848
```

	FEATURES			COMMENT	JOURNAL	AUTHORS TITLE	REFERENCE	JOURNAL	AUTHORS	JOURNAL	T 191 0			AULHORS	REFERENCE	ORGAINTSIN	SOURCE	VERSION VERSION		LOCUS	RESULT 8				g Qy		Q	g 49		Qy	Db QQ		VQ.	рb
	http://www-bio.llnl.gov/bbrp/genome/genome.html. Location/Qualifiers	(CTD-3187F8, AC063977) on the right from bases 120,922 to 132,323 of this accession. Additional chromosome 19 map and sequence information are available at:	(CTC-51882) overlaps BAC BC88745 (CTB-147C22, ACO11483) on the left from bases 1 to 2,226 of this accession, and overlaps BAC BC892989	On Oct 12, 2000 this sequence version replaced gi:7458725.	Submitted (12-OCT-2000) DOE Joint Genome Institute, Lawrence Livermore National Laboratory. Livermore, CA 94550	Lamerdin, J.E. Direct Submission	Creek, CA	Submitted (07-0CT-1999) Production Sequencing Facility, DOE				Amico-Keller, G., Coeffeld, J., Duarte, S., Lucas, S., Bruce, R.,	Garnes, J., Danganan, L., Erler, A., Christensen, M., Georgescu, A., Bylar, B., Christensen, M., Georgescu, A., Bylla J. Tin & Indrese T. Trankhoim M. Netter				Homo	AC011473 AC011473.4 GI:10799392	sequence.	AC01		;	\$	416 TGACTAAAGGTTACCTGTTGTCGTGA 1441	1356 TGTGTATGTAAATCTTCATGTGATTGTCATGTAAGGCTTAACACAGTGGGTGAGTTC 1415	5329 ANATGGGNACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATAATAACA 5388		1236 CGGCTGTGTGACTTTGGGCAAGTGCCCTCTGTAACCTCAGTTTCCTCATCTGCA 1295 5269 CGGCTGTGGACTTTGGGCAAGCCAAGTGCCCTCTGAACCTCAGTTTCCTCATCTGCA 5328	ATCACCCAGCCTCTGAGAGCAGTTACTGGGGGTCACCCAACCTGACTTCCTCTGCCACTTCC	1176 ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCCAACCTGACTTCCTCTGCCACTCC 1235	1116 GAAGCTGAAAIGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTC 1175	CCTCTAAACATCTCCCCTCTCACCTCATTCCCCCAACCTATCCCCATTCTCTGCCTGTACT	1056 CCTCTAAACATCTCCCCTCTCACCTCATTCCCCCCACCTATCCCCCATTCTCTGCCTGTACT 1115	5029 TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGGCCCTCCACA 5088
- 1,	repeat	rei	repeat	repeat_	repeat	repeat	repeat	repeat							CDS		mRNA		gene	repeat	repeat	repeat	repeat					CDS	mRNA		gene			source
0	_region	- 1	at_region	t_region	at_region	at_region	t_region	t_region												i I	t region	t_region	t_region						ь					

```
gene
                                                                                                                       Sgo
                                                                                                                                                                                    SIS
                                                                                                                                                                                                                                    mRNA
                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
complement (join (14881 ...15033,15498 ...15631,15963 ...16237, 17191 ...17371,19124 ...19211))
/gene="KLK10"
/note="protease, serine-like, 1"
/codon_start=1
/product="Kallikrein 10"
/product="Kallikrein 10"
/protein id="AAG23256.1"
/db xref="dd:10799395"
/translation="WRAPHLHLSAASGARALAKILPILMAQIWAAEAALLPQNDTRLD
PEAYGSPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLL
                                                                                                                                                                                                       /note="kallikrein 10; synonyms: NES1, PRSSL1"
complement (join(14351. .15033,15498. .15631,15963.
17191. .17371,19124. .19220,19708. .19779))
/genc="KLK10"
                                                                                                                               /standard_name="stSG30247"
/note="RH48452, WIAF-3662-STS"
complement (14432. 14604)
/rpt_family="MIR"
                                                                                                                                                                                                                                                                   /rpt_family="L2"
complement(13507. .13804)
/rpt_family="AluSq"
/complement(14351. .19779)
                                                                                                                                                                                                                                                                                                                       /rpt
13287
                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_family="AluSx"
complement(11989. .12069)
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="(TTTG)n"
complement(11133. .11
                                                                                                                                                                                                                                                                                                                                                                        comp
                                                                                                                                                                                                                                                                                                                                                                                                           complement (12391. .12498)
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement (12070.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="L3"
8130: .8448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /rpt_family="Alusg" 6015. .6043
                                                                                                                                                                                                                                                                                                                                                                                                                                   'zpt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="MIR"
11097. .11128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="(TG)n"
7840. .7912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="L3" 5878. .6014
                                                                                                                                                                                             product="KLK10 mRNA"
                                                                                                                                                                                                                                                            gene="KLK10"
                                                                                                                                                                                                                                                                                                                                                                                  zăr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /rpt_family="AluSg"
11412_ .11515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /rpt_family="Alusg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rpt_family="Alusg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rpt_family="(TAA)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rpt_family="MER104"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'xpt_family="CT-rich"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rpt_family="GA-rich"
                                                                                                                                                                                                                                                                                                                                   _tamı
                                                                                                                                                                                                                                                                                                                                                         lement(12694. .12976)
family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                        family="AluJo"
ement(1990"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="L2"
5. .11096
                                                                                                                                                                                                                                                                                                                                                                                     family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _family="MER33"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="MIR"
                                                                                                                                                                                 .14530
                                                                                                                                                                                                                                                                                                                        .13393
                                                                                                                                                                                                                                                                                                                                                 .13101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 6340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .11979
                                                                                                                                                                                                                                                                                                                                1y="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .11411)
LOCUS
DEFINITION
ACCESSION
                                    RESULT 9
AF243527/c
                                                                                                           S
                                                                                                                                      밁
                                                                                                                                                         Ś
                                                                                                                                                                                      밁
                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                        몽
                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          និ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                     14377
                                                                                                                                      14437
                                                                                                                                                                                                                                       14557
                                                                                                                                                                                      14497
                                                                                                                                                                                                                                                                                                                                        14677
                                                                                                                                                                                                                                                                                                                                                                                                                                           14797
                                                                                                                                                                                                              1296
                                                                                                                                                                                                                                                                1236
                                                                                                                                                                                                                                                                                         14617
                                                                                                                                                                                                                                                                                                               1176
                                                                                                                                                                                                                                                                                                                                                                                          14737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15037
                                                                                                                                                                                                                                                                                                                                                                1116
                                                                                                                                                                                                                                                                                                                                                                                                                  1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     876
AF243527 230000 bp DNA linear PRI 21-NC Homo sapiens serine protease gene cluster, complete sequence. AF243527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              685;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_family="AluJo"
17913. .17932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_family="(CAA)n"
```

```
756 CCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTG 815
CTGACTAPAGGITACCTGTTGTCGTGA 1441
                                                                                                                                                                                                                                                                                     TGTGTATATATCTTCAT-GTGATTGTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 14438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        crecrerencia con receiva de la constanta de la
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCA 1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCCAGGAAGCCGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ceretabacarerecereteacereacerececacerarececarrerecereceracer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     receeastesecretaines en en esta en en esta en e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATA 14918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAGTGACTCTGGAGGCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTG 14978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /rpt_family="MSR1"
complement(16473. .16818)
/rpt_family="AluSq"
17787. .17912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLQGEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVLGPRVRALQLPY
RCAQPEDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGL
DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15245. .15420
/rpt_family="(TTGGGG)n"
15715. .15967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46.3%; Score 673.4; DB 9;
99.7%; Pred. No. 4.3e-130;
tive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 132323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14498
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1055
                                                                                                                                                                                                                                                                                                             14378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14856
```

PRI 21-NOV-2000

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                 Sg
                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Moss,P., Paeper,B. and Wang,K.
Sequencing and expression analysis of the serine protease gene cluster located in chromosome 19q13 region
Gene 257 (1), 119-130 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (09-MAR-2000) Chiroscience R & D
Bothell, WA 98021, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gan, L., Lee, I., Smith, R., Ar Moss, P., Paeper, B. and Wang,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 (bases 1 to 23000)
Gan, L., Lee, I., Smith, R., Argonza-Barrett, R., Lei, H., McCuaig, J., Moss, P., Paeper, B. and Mang, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AF243527.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11054574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 230000)
1,L., Lee,I., Smith,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="MWFLVLCLALSLGGTGAAPPIQSRIVGGWECEQHSQPWQAALYH FSTFQCGGILVBRQWVLTAAHCISDNYQLWLCHRLHDDENTAQFVHVSESFPHPGFN MSLLENHTRQADEDYSHDLMLLTIPADTITDAKVVELPTEBEYVGSTCLASGWGS IEPENFSFPDDLQCVDLXLLPNDECKKAHVQKVTDFMLCVGHLEGGKDTCVGDSGGPL MCDGVLQGVTSWGYVPCGTPNKPSVAVRVLSYVKWIEDTIAENS" complement (join (<13552. .13704,14377. .14530,14678. .14917, 15416. .15569,19204. .>19246))
/product="ACO protease" complement (join(13552. .13704,14377. .14530,14678. .14917, 15416. .15565,19204. .19246))
                                                                                                                                                                                                                                                                                  /product="ACO protease"
/protein_id="AAG3354.1"
/protein_id="AAG3354.1"
/db_xref="G:111244759"
/translation="MMLLLTLSPLIASTAAQDGDKLLEGDECAPHSQPWQVALYERGR
/translation="MMLLLTLSPLIASTAAQDGDKLLEGDECAPHSQPWQVALYERGR
ENCGASLISPHWULSAAHCQSREWRVELGEHMLRKRDGPEQLETTSRVIPHRRYEARS
HRNDIMLLRLVQPARLNPQVRPAVLPTRCPHPGEACVVSGWGLVPLSSPVSLPDTLHC
ANISIISDTSCDKSYPGRLTMYMVCAGAEGRGAESCEGDSGGPLVCGGILQGIVSWGD
                                                                                                                                                                                                                         <42595. .>47769
/gene="KLK3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement (join(6963. .7118
9482. .9641,11472. .11517))
/gene="KLK1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement (join (6963. .7118,7668. .7804,7923. .8212,
9482. .9641,11472. .>11517))
/gene="KLK1"
/product="renal kallikrein"
                                                                                                                                                                                                                                                                      VPCDNTTKPGVYTKVCHYLEWIRETMKRN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="renal kallikrein"
/protein_id="AAG33353.1"
/db_xref="GI:11244758"
/product="prostate specific antigen"
                          codon_start=1
                                          note="serine protease"
                                                                                                            product="prostate specific antigen"
oin(42595. .42640,43880. .44039,456
                                                                                                                                                         gene="KLK3"
                                                                                                                                                                                                      join(<42595.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="serine protease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="serine protease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'gene="KLK1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement (<6963. .>11517)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . .230000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:11244757
                                                                                         .47769)
                                                                                                                                                                                 .>47769)
                                                                                                                                                                                                    .42640,43880. .44039,45669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Argonza-Barrett,R., Lei,H.,
ng,K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7118,7668. .7804,7923. .8212
                                                                                                            .44039,45669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1631 220th St. SE,
                                                                                                          .45955,46099.
                                                                                                                                                                                                 .45955,46099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McCuaig, J.,
                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sab
```

```
/product="serine protease"
/protexin_id="AAG33357.1"
/protexin_id="AAG33357.1"
/db_xref="70t;111244762"
/translation="MATAGNPWGWPLGYLILGVAGSLUSGSCSQIINGEDCSPHSQPW
/translation="MATAGNPWGWPLGYLILGVAGSLUSGSCSQIINGEDCSPHSQPW
/translation="MATAGNPWGWPLGYLILGVAGSLUSGSCSQNWEASLS
VRHPEYNRFLANDLHLIKLDESVSESDTIRSISIASQCPTAGNSCLVSGWGLLANGR
MPTVLQCVNVSTVSESYCSKLYDPLYHPSMFCAGGGHDQKDSCNGDSGGPLICNGYLQ
GLVSFGKAPCGQVGVGVYTNLCKFTEWIEKTVQAS"
/product="protease M"
/protein_id="AAG33359.1"
/protein_id="AAG33359.1"
/db_xref="GI:11244764"
/translet.on="MXX44764"
/translet.on="MXX44764"
/LCGGVLIHPLWVLThAHCKKPNLQVFLGKHMLRQRESSQEQSSVVRAVIHPDVDAAS
HDQDIMLLRLARPAKLSELIQPLPLERDCSANTTSCHILGWGKTADGDFPDTIQCAYI
                                                                                                                                                                                                                                                                                                                                                                                                         PKVLQCLNISVLSQKRCEDAYPRQIDDTMFCAGDKAGRDSCQGDSGGPVVCNGSLQGI
VSWGDYFCARPNRFGVYTNLCKFTKWIGETIQANS
complement (join'<146834. 146986. 149764,
151186. .151433,155052. .155208,155948. .>155987))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="stratum corneum trypsin-like serine protease"
complement(join(131301. .131456,136310. .136443,
136529. .136785,137525. .137690,140255. .140303))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement(join(<131301. .131456,136310. .136443,
136529. .136785,137525. .137690,140255. .>140303})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="MWDLVLSIALSVGCTGAVPLIQSRIVGGWECEKHSQPWQVAVYS HGWAHCGGVLYHEQWYTTAAHCLKKNSQVWLGRHNLEEPEDTGGVENFYSHSEPHPLYN MSLLKHQSLRPEDESSHDLMLLRLSEPAKITDVWVVLGLFHDLGGKDTGGDSGGPLYN BEBEFLRRSLQCVSLHLLSNDMCARAYSEKVTEFMLCAGLMTGGKDTGGDSGGDFLEEFLFRESTEFNERSLQCVSLHLLSNDMCARAYSEKVTEFMLCAGLMTGGKDTGGDSGAPLY CNGVLQGITSWGFBCALFEKKPAVYTKVVHYKKMIKDTIAANP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon_start=1
/product="stratum corneum trypsin-like serine protease"
/protein_id="AAG3358.1"
/protein_id="AAG3358.1"
/db xref="GI:11244763"
/translation="WMVLCALITALLLGVTDARSDDSSSRIINGSDCDMHTQPWQAAL
/translation="WMVLCALITALLLGVTDARSDDSSSRIINGSDCDMHTQPWQAAL
/translation="WMVLCALITALLLGVTDARSDDSSSRIINGSDCDMHTQPWQAAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product#"serine protease"
complement(join(94602. .94754,96027. .96163,96247. .96497,96919. .97081,98345. .98405))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="MWVPVVFLTLSVTWIGAAPLILSRIVGGWECEKHSQPWQVLVAS
RGRAVGGVLVHPGWYLTAAHCIRNKSVILLGRHSLEHBEDTGQVFQVSHSFEHPLYD
MSLLKUNFFLRSGDDSSHDMLLFLSBEBAELTDAVKYMDLFPTQEFALGTTCYASGWSI
EPEEFLTPKKLQCVDLHVISNDVCAQVHPQKVTKFMLCAGRWTGGKSTCSGDSGGPLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PGYSHPGHSNDLMLIKLNRRIRPTKDVRPINVSSHCPSAGTKCLVSGWGTTKSPQVHF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (<131301. .>140303)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement(join(<94602. .94754,96027. .96163,96247. .96497,96919. .97081,98345. .>98405))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="glandular kallikrein"
join(61139. .61184,62391. .62550
66074. .66229)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="KLKS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="synonym: SCTE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
/product="glandular kallikrein"
/protein_id="AAG33356.1"
/db_xref="GI:11244761"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="KLK2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66074. .>66229)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="KLK2"
join(<61139. .61184,62391. .62550,64142. .64428,64542.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CNGVLQGITSWGSEPCALPERPSLYTKVVHYRKWIKDTIVANP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /protein_id="AAG33355.1"
/db_xref="GI:11244760"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene="KLK5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="KLK5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="serine protease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'gene="KLK2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .61184,62391. .62550,64142. .64428,64542. .64678,
```

HLVSREECEHAYPGQITQNMLCAGDEKYGKDSCQGDSGGPLVCGDHLRGLVSWGNIPC

```
Ş
                                                                                                                                                                           В
                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                            밁
                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sgo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                    202820 CCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCCTCGTG 202761
                                                                                                                                                                                                                                                                                                                                    816 GGGTGTTTACCCCTGTGGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATA 875
                                                                                                                                                                                                                                     876 CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACA 1055
                                                                                                                                                                           CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 202641
                                                            TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC 202581
                                                                                               TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTG 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46.3%;
ilarity 99.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TSPRENFPDTINCAEVKIFPQKKCEDAYPGQITDGMYCAGSSKGADTCGGDSGGPLYC
DGALGGITSWGSDFCGKSDKPGYYTNICRYLDWIKKIIGSKG"
complement (join (4.190980. 1.9129, 191573. ..)91709,
194324. ..194589,197048. ..197204,197370. .>197412))
/product="Fallikrein-like 3"
complement (join (190980. ..19129,191573. ..191709,
194324. ..194589,197048. ..197204,197370. ..197412))
/note="serine protease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (join <183943. .184098,185635. .185768, 187665. .188127,188293. .188452,188967. .>189036/product="neuropsin"
complement (join 183943. .184098,185635. .185768, 187865. .188127,188293. .188452,188967. .189036)/note="serine protease, also called ovasin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /translation="MARSLLLPLQILLLSLALETAGEEAQGDKIIDGAFCARGSHPWQ
VALLSGNQLHCGGVLVNERWVLTAAHCKMNEYTVHLGSDTLGDRRAQRIKASKSFRHP
GYSTQTHVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MKLGLLCALLSLLAGHGWADTRAIGAEBCRPNSQPWQAGLFHLT
RLFCQATLISDRWLLTAAHCRKRYLWYBLGEHHLMKWBG2BGLERVTDFFPHFQFNKD
LSANDHNDDLWLIRLFRQARLSBPACPLNLGOTCVSFGWQCLISGWGAVSQFKALFBV
TLQCANISILENKLCHWAYFGHISDSMLCAGLWEGGRGSCQGDSGGPLVCNGTLAGVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="MGRPRFFAAKTWMFLLLLGGAWAGHSRAQEDKVLGGHECQPHSQ
PWQAALFQGQQLLCGGVLVGGNWVLTAAHCKKPKYTVRLGDHSLQNKDGPEQEIPVVQ
SIPHPCYNSSDVEDHNHDLMLLQLRDQASLGSKVKPISLADHCTQPGQKCTVSGWGTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="neuropsin"
/protein_id="AAG33361.1"
/db_xref="GI:11244766"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SDLMCVDVKLISPQDCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGL
VSWGTFFCGQENDPGVYTQVCKFTKWINDTMKKHR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(join(<165420. .165575,167672. .167808, 168124. .168371,169651. .169798,170211. .>170283))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GSKEKPGVYTNVCRYTNWIQKTIQAK" complement (<165420. .>170283)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGGAEPCSRPRRPAVYTSVCHYLDWIQEIMEN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="stratum corneum chymotryptic enzyme"
complement(join(165420. .165575,167672. .167808,
168124. .168371,169651. .169798,170211. .170283))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="kallikrein-like 3"
/protein_id="AAG33362.1"
/db_xref="GI:11244767"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="stratum corneum chymotryptic enzyme"
/protein_id="AAG33360.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="KLK7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="KLK7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 db_xref="GI:11244765"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="serine protease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 673.4; DB 9;
Pred. No. 4.1e-130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 230000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .>189036))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 189036))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
```

```
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     먉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       仔
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        꿈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC130782/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         202580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202400
                                                                                                                                                                                                                                                                                                                                                                                        Benjamin, B., Blakesley, R.M., Bouffard, G.G., Brinkley, C., Brooks, S., Cariaga, K., Coleman, B., Engle, J., Granite, S., Guan, X., Gupta, J., Haghighi, P., Han, J., Hansen, N., Ho, S.-L., Idol, J.R., Karlins, E., Laric, P., Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B., Marguiles, E.H., Masiello, C., Maskeri, B., McDowell, J., Paguirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Reddix, Dugue, N., Schandler, K., Schueler, M.G., Sison, C., Stantripop, S., Thomas, J.W., Thomas, P.J., Touchman, J.W., Vogt, J.L., Wetherby, K.D., Wiggins, L., Young, A. and Green, E.D.

Will Comparative Sequencing Initiative
                                                                                       Submitted (22-NOV-2002) NIH Intramural Sequencing Center, 8717 Grovemont Circle, Gaithersburg, MD 20877, USA On Nov 22, 2002 this sequence version replaced gi:22218452.
                                                                                                                                                                                                                 Submitted (14-AUG-2002) NIH Intramural Sequencing Center, 8717 Grovemont Circle, Gaithersburg, MD 20877, USA (bases 1 to 200792)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AC130782.2 GI:25167101
HTG; HTGS_PHASE2; HTGS_DRAFT
Pan troglodytes (chimpanzee)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC130782 200792 bp I
                                                                                                                                                                         Green, E.D.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Akhter, N., Antonellis, A., Ayele, K., Beckstrom-Sternberg, S.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan. 1 (bases 1 to 200792)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pan troglodytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ordered pieces.
                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCTABACATCTCCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACT 202461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCTARACATCTCCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACT 1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CIGACIAAAGGITACCIGITGICGIGA 202134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGACTAAAGGTTACCTGTTGTCGTGA 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCA 1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTC 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGTATGTAAATCTTCAT-GTGATTGTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTT 1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AMATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 202221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCC 1235
                                                                                                                                                                                                                                                                                                                                                (bases 1 to 200792)
Web site: http://www.nisc.nih.gov
                       Center: NIH Intramural Sequencing Center code: NISC
                                                                       ----- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA linear HTG 22-NOV-2002
, WORKING DRAFT SEQUENCE, 12
                                                  Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              202521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         202281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          202401
```

Center project Information
Center project name: dhz
Center clone name: 355A20

```
The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contig has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human), and/or confirmation by PCR testing. In addition, the sequence assembly is based on at least 8X average coverage in Q20 bases and has been reviewed to rule out gross misassemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.

Sequencing vector: plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0, 990319

Consensus quality: 196856 bases at least Q40

Consensus quality: 197883 bases at least Q20

Insert size: 215000: agarose-fp
                                                                                                                                                                                                                                                                                                        ** NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

**This sequence will be replaced

**by the finished sequence as soon as it is available and the accession number will be preserved.

** 28307 28306: contig of 28306 bp in length 28307 28406: gap of unknown length 37857 37956: gap of unknown length 37857 37956: gap of unknown length 37852: contig of 9450 bp in length 37852 383567: gap of unknown length 88358 88817: contig of 5945 bp in length 88368 88817: contig of 5945 bp in length 88918 88917: gap of unknown length 125612: gap of unknown length 125612: contig of 5150 bp in length 125980 15979: gap of unknown length 15980 15979: gap of unknown length 15980 15979: gap of unknown length 15980 174798: gap of unknown length 16383: contig of 34168 bp in length 16383: gap of unknown length 16383: contig of 13184 bp in length 16383: gap of unknown length 163843: gap of unknown length 163844: gap of unknown length 163845: contig of 6862 bp in length 163845: contig of 6862 bp in length 163845: contig of 6862 bp in length 163846: gap of unknown length 163846; gap of unk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insert size: 215000; agarose-fp
Insert size: 199692; sum-of-contigs
Quality coverage: 9.03x in Q20 bases; agarose-fp
Quality coverage: 9.73x in Q20 bases; sum-of-contigs
                                                                                                              뜅
                                                                                                                                                                    Ş
                                                                                                                                                                                                                                믕
                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 679; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                            133507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          133627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    133807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133927 CCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTGCAAGGCATCCTCTCGTG
                                                                                                                 133387
                                                                                                                                                                                                                             133447
                                                                                                                                                                                                                                                                                                                                                                                                                                                           133567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     133747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   133867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              816 GGGTGTTTACCCCTGTGGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     876 CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                756 CCAGAGTGACTCTGGAGGCCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTG
                                                                                                                                                                                                                                                                                                                                   ATCGCCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTC 1175
                             TGTGTATGTAAATCTTCAT-GTGATTGTCATGTAAGGCTTAACACAGTGGGTGGGTGAGTT
                                                                                                                                               AAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 1355
                                                                                                                                                                                                                                                                 CCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCA 1295
                                                                                                                                                                                                                                                                                                                                                                                               ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCC 1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCTAAACATCTCCCCCTCTCACCTCATTCCCCCCACCTATCCCCCATTCTCTCTCTGCCTGTACT 1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACA 133628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATA
                                                                                                           AMACGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA
                                                                                                                                                                                                                       ccecrereneactriceschaecchaereccerereneactricaerricerearcreca
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACT 133568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCGCGCCCTCCACA 1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCGTCGTCCATCCTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGICCIGGATCAATAAAGICATACGCTCCAACTGATCCAGATGCTACGCTCCAACTGA 133748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49975 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="assembly_fragment"
193465 . .19363
/note="assembly_fragment"
193464 . .200792 -
/note="assembly_fragment
clone_end:T7
vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="assembly_fragment"
186483. .193344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         174799. .18638;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
159980. .174698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88918. .125611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83668. .88817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="assembly_fragment"
73623. .83567
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="assembly_fragment"
125712. .159879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rector_side:right"
49805 c 48502 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45.7%;
98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .73522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 663.8; DB 2;
Pred. No. 4.1e-128;
0; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51409 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1101 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 200792;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                  1414
133268
                                                                                                           133328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     818
                                                                                                                                                                                                                          133388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        995
                                                                                                                                                                                                                                                                                                                                      133448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                133808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133868
```

FEATURES

source

misc_feature

/mol_type="genomic_DNi /db_xref="taxon:9598" /clone="CH251-355A20" /organism="Pan troglodytes" /mol_type="genomic DNA"

/clone_lib="CH251" L. .28306

note="assembly_fragment

misc_feature

vector_side:left" clone_end:SP6

'note="assembly_fragment"

length length length length

length

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
AC140096/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             133267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (10-APR-2003) NIH Intramural Sequencing Center, 8 Grovemont Circle, Gaithersburg, MD 20877, USA On Apr 10, 2003 this sequence version replaced gi:28827863.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benjamin, B., Blakesley, R. W., Bouffard, G.G., Brinkley, C., Brooks, S., Cariaga, K., Coleman, B., Engle, J., Granite, S., Guan, X., Gupta, J., Haghighi, P., Han, J., Hansen, N. H., S.-d., Idol, J. R., Karlins, E., Laric, P., Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B., Margulles, E.H., Masiello, C., Maskeri, B., McDowell, J., Paguirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Reddix-Dugue, N., Schandler, X., Schueler, M.G., Sison, C., Stantripop, S., Thomas, J. W., Thomas, P. J., Touchman, J. W., Vogt, J.L., Wetherby, K.D., Wiggins, L., Young, A., and Green, B.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (21-FSB-2003) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (bases 1 to 178504)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Akhter, N., Antonellis, A., Ayele, K., Beckstrom-Sternberg, S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
1 (bases 1 to 178504)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HTG; HTGS_PHASE1; HTGS_DRAFT.
Pan troglodytes (chimpanzee)
Pan troglodytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC140096
AC140096.3 GI:29725783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AC140096 178504 bp Pan troglodytes clone RP43-63K10,
                                                                                                                               NOTE: This is a 'working draft' sequence. It currently consists of 9 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NISC Comparative Sequencing Initiative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unordered pieces.
                                                                                                                as soon as it is available be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGACTAAAGGTTACCTGTTGTCATGA 133241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGACTAAAGGTTACCTGTTGTCGTGA 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 178504)
                                                                                                                                                                                                                                                                                                                                                        Insert size: 150000; agarose-fp
Insert size: 177704; sum-of-contigs
Quality coverage: 15.98x in Q20 bases; agarose-fp
Quality coverage: 13.49x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Summary Statistics
Sequencing vector: plasmid; n/a; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 174918 bases at least Q40
Consensus quality: 175859 bases at least Q30
Consensus quality: 175411 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center clone name: 063K10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: nisc_zoo@nhgri.nih.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center: NIH Intramural Sequencing Center Center code: NISC
           2384
2484
6760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project name: dxz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Web site: http://www.nisc.nih.gov
2383: contig of 2383 b
2483: gap of unknown 1
6759: contig of 4276 b
6859: gap of unknown 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA linear HTG 10-APR-2003
WORKING DRAFT SEQUENCE, 9
3 bp in length
n length
6 bp in length
n length
                                                                        Ş
                                                                                                                               뭉
                                                                                                                                                                             Ś
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                       108255
                                                                                                                                                                                                                                                                                                                                                  108315
                                                                                                                                                                                                                                                                                                                                                                                                                                                             108375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        108435
                                                                                                                                                                                                                                                                                                                                                                                                   876
                                                                                                                                                                                                                                                                                           936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            756
     ccadadreacrerdadecececerdererdaceadacecrecaadecarecreregre
                                                         CCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACT 1115
                                                                                                             TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCCTCCACA 108136
                                                                                                                                                                                                                        TCCAGATGTTACGCTCCTGCTGATCCAGATGCCCAGAGGCTCCGTCGTCCATCCTCTTCC
                                                                                                                                                                                                                                                                 TCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                  CATGTCCTGGATCAATAAAGTCATAACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGA 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGTGTTTACCCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ccagagreacreregaegececeregrerereaegaegaecerecaaggearecreregre
                                                                                                                                                   TCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACA 1055
                                                                                                                                                                                                                                                                                                                                   CATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAACTGA 108256
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGTGTTTACCCCTGTGGCCTGTCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vector side:right"
45393 a 43210 c 44824 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84880
132839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6860
13256
13356
12356
128051
18151
18151
18151
20529
30529
847864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  clone_end:SP6
vector_side:r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vector_side:left"
132939. .178504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="assembly_fragment" 30529. .44463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84880. .132838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44564.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18151. .30428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2484 6759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
14564. .84779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="RP43"
!. .2383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DN
/db_xref="taxon:9598"
/clone="RP43-63K10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Pan troglodytes"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18050: Contig of 4895 bp in len 18150: gap of unknown length 30428: contig of 12278 bp in le 30528: gap of unknown length 44463: contig of 13935 bp in le 44563: gap of unknown length 84779: contig of 40216 bp in le 84879: gap of unknown length 132838: contig of 47959 bp in le 132938: gap of unknown length 132938: gap of unknown length 132938: gap of unknown length 178504: contig of 45566 bp in length 178504: contig of 45560 bp in length 178504: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .13255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .18050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 662.2;
Pred. No. 8.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 6396 bp in length
unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44250 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8.9e-128;
ches 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               827 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 178504;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
```

1; Gaps

815

875

108376

108316

995

bp in r

in length

bp in 1 bp in] length bp in .

length

in length in length in length in length

å g

Length

length

```
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
AC073185/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           107835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    107895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108015
                                                                                                                                     1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota, Metazoa, Chordata, C
Mammalia, Eutheria, Primates, C
1 (bases 1 to 142334)
Waterston,R.H.
Waterston,R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens seQUENCE, 32 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (10-JUN-2000) Genome Sequencing Center, Washington.
University School of Medicine, 4444 Forest Park Parkway, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               University School of Medicine, 4444 Forest Park Parkway, 9 MO 63108, USA
On Aug 17, 2000 this sequence version replaced gi:9653152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center: Washington
Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC073185.4 GI:9838034
HTG; HTGS_PHASE1; HTGS_DRAFT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 142334)
Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dedsildudun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC073185
  NOTE: This is a 'working draft' sequence. It currently consists of 32 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGACTAAAGGTTACCTGTTGTCGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAACGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 107836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTGTATGTAAATCTTCATGGTGATTGTCATGTAAGGCTTAACACAGTGGGTGAGTT 107776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGTATATATCTTCAT-GTGATTGTCATGTAAGGCTTAACACAGTGGGTGAGTT 1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAACA 1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTCCTCATCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTGTGAACCTCAGTTTCCTCATCTGCA 1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGCCCAGCCTCTGAGAGCAGTTACTGGGTCACCCAACCTGACTTCCTCTGCCACTCC 107956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCGAGGAAGCCGGTC 108016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCCAGGAAAGCCGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTAAAGGTTACCTGTTGTCATGA 107749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142334 bp DNA linear HTG 17-AUG-2000 chromosome 19 clone RP11-10II1, WORKING DRAFT unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       107896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1175
                                                                                                                                        FEATURES
                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 as soon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                            94520
100166
100266
107335
107435
115094
115194
115194
1122024
122124
132650
132750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7892
100127
101127
111896
111896
115071
115171
115177
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
11857
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
11857
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
11857
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
118577
11857
118577
118577
118577
118577
118577
118577
118577
118577
118577
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1453
1553
2738
2838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4666
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="19"
                                                                                                                                        ocat
                                                                                                           .142334
                                                                                                                                                                                                                                           115193:
122023:
122123:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77554:
84318:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5751
6171
6181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             46521
51157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10026:
10126:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30992:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11895
                                                                                                                                     Qualifiers
                                                                                                                                                          gap of unknown conting of 7659 kgap of unknown conting of 6830 kgap of unknown conting of 10526 gap of unknown conting of 10526 kgap of unknown conting of 9585 kgap of unknown conting of 9585 kgap of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gap of contig gap of contig gap of contig gap of contig gap of gap of
                                                                                                                                                                                                                                                                                                                                                                                 gap of contig ga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig
gap of
contig
gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                 f unknown
of 5670
unknown
of 5646
unknown
of 7069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              f unknown
y of 4439
y of 5631
f unknown
f unknown
y of 5374
t unknown
y of 6764
t unknown
y of 4231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            f unknown
g of 2995
f unknown
g of 3965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unknown
of 4194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 6159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 4217
tunknown
of 3952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g of 1769 bp in left unknown length g of 3075 bp in left unknown length
                                                                                                                                                                                                              of 10526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
of 2858
unknown
of 3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 3306
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown
of 2135
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of 1828
unknown
of 1289
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 4636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of 2988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 2961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of 1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of 1452
                                                                                                                                                                                                     length
bp in length
n length
26 bp in length
                                                                                                                                                                                                                                                                                                  length
in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bp 14.
n length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 bp in length
n length
8 bp in length
```

length in length

length

length

bp in length length bp in length length

length bp in length

ength

length

length

ength

length

length

length length

length

length bp in]

length bp in length bp in length

bp in length

length

bp in length bp in length length ğ

in length

length

bp in length length bp in : length

bp in length length

length length

```
BASE COUNT
ORIGIN
   Query Match
Best Local Similarity
Matches 680; Conserv
                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                              35374
       43.6%;
ilarity 98.8%;
Conservative (
                                                                                         vector_side.right"
132750, .142334
/notce="assembly name:Contig58"
.34343 c 34668 g 34842 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_name:Contig46"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51258. .57416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_name:Contig43"
46522. .51157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15171
                                                                                                                                                               clone_end:T7
                                                                                                                                                                                                                                       /note="assembly_name:Contig55"
115194. ,122023
                                                                                                                                                                                                                                                                                                                                                                                   88750. .94419
                                                                                                                                                                                                                                                                                                                                                                                                                   84419. .88649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42457 46421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35310. .39261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21638. .24625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6155. .7791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="RP11-10I11"
1. .1452
                                                                                                                                                                                                                                                                         /note="assembly_name:Contig54"
107435. .115093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27684. .30892
/note="assembly_name:Contig39"
30993. .35209
/note="assembly_name:Contig40"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11996. .15070
                                                                                                                                                                                                    122124. ,132649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="assembly_name:Contig42"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_name:Contig34"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1553. .2737
                                                                                                                                                                                note="assembly_name:Contig57
                                                                                                                                                                                                                note="assembly_name:Contig56"
                                                                                                                                                                                                                                                                                                           00266. .107334
                                                                                                                                                                                                                                                                                                                          note="assembly_name:Contig53"
                                                                                                                                                                                                                                                                                                                                               note="assembly_name:Contig52"
94520. .100165
                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_name:Contig51"
                                                                                                                                                                                                                                                                                                                                                                                                                                /note="assembly_name:Contig50"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_name:Contig49"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72081. .77454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_name:Contig47"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="assembly_name:Contig44"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="assembly_name:Contig38"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="assembly_name:Contig37"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note="assembly_name:Contig36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_name:Contig33"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="assembly_name:Contig30"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_name:Contig29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="assembly_name:Contig28"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_name:Contig27"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="assembly_name;Contig26"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="assembly_name:Contig41"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_name:Contig31"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e="assembly_name:Contig48"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           e="assembly_name;Contig45"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e="assembly_name;Contig35"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .6054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .4665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .42356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .10026
                                                                                                                                                                                                                                                                                                                                                                                                                                                       .84318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .71980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .21537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .66249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .11895
     0
     Score 633.6; DB 2;
Pred. No. 8.3e-122;
0; Mismatches 4;
                                                                                            3107 others
     Indels
                                       Length 142334;
     4.
     Gaps
     4
                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                       DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
AX331169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    货
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                         FEATURES
                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                              Sabor
                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                            STILL
                                                                                                          JOURNAL
                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              55556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1054 CACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTCTGCCTGTA 1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           934
                                                                                                                                                                                                                                                                                                                    Sequence 1678 from Patent WO0194629.
                                                                                                                                      Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, G., Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening using signature
                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                           gene sets
                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                       AX331169.1 GI:18121803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCCGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAACCCTCAGTTTCCTCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCCAGATGTTATGCTCCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGTGTTTACCCCCTGTG-GCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAA 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCATCACCCAGCCTCTGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACT 55431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCA 5561:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCCCAGTCGGCTGAACTCTCCCCCTTGTCTGCCACTGTTCAAACCTCTGCCGCCCTCCA 1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGTGTTTĂĊĊĊCTCTGTGCTCTGCĆĊĀGCATĊĊĀGCTGTCTĀĊĀCCĊAĞATCTGĊAĀĀ 55796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGACTAAAGGTTACCTGTTGTCGTGA 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGIGTATGTAAATCITCATGTGATTGTCATGTAAGGCTTAACACAGTGGGTGGTGAGT 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTTGAGGAGACTATGATATAA 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCGCTGTGTGACTTT-GGCAAGCCAAGTGCCCTCTCTGAACCTCAGTTTCCTCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCATCACCCAGCCTCTGAGAGAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACT 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGAAGCTGAAATGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGG 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCTCTAMACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTGACTAAAGGTTACCTGTTGTCGTGA 55230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACATGTCCTGGATCAATAAAGTCATACGCTCCAACTGATCCAGA-CTGACGCTCCAGCT
                                                                                   : WO 0194629-A 1678 13-DEC-2001;
Pharmaceuticals (US)
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                        linear
```

55378

55557

55497

55677

993 55737 933

PAT 09-JAN-2002

```
RESULT 14
AX331572
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                           货
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                     ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 531
     Query Match 35.0%;
Best Local Similarity 99.4%;
Matches 531; Conservative
                                                                                                                                                             TITLE
                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                        1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1012
                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           712 AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                        gene sets
Patent: W
                                                                                                                                                       Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, G., Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening using signature
                                                                                                                                                                                                                          Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                            AX331572
Sequence 2081 from Pate:
AX331572
AX331572.1 GI:18122206
                                                                                                                           Avalon
                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crecrearceaeareceaeaeerecarecrecarecreteceeeeaereeaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCCCCTGGTCTGTGACGAGACCCTCCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                      AAGTGGTGGCAAAGGTTTATTCCAGAGAAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC 107:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTGATCCAGATGCCCAGAGGGTCCATCGTCCATCCTCCTCCCCAGTCGGCTGAA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTCTG-CCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAAT 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTCTGCCCAGCATCCAGCTGTCTACACCCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCCCTGGTCTGTGACGAGACCCTCCAAGGCAFCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                             AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA
                                                             110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35.0%;
nilarity 99.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               110
                                                                                                                           Pharmaceuticals
                                                           ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D
                                                                                                                                     WO 0194629-A 2081 13-DEC-2001;
                                                       /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
183 c 113 g 12
                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ი
                                                                                                                                                                                                                                                                                  Patent
    Score 508.4; DB 6;
Pred. No. 1.7e-95;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 508.4; DB 6
Pred. No. 1.7e-95;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113
                                                                                                                            (SD)
                                                                                                                                                                                                                                                                                  532 bp I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ω
                                                           126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             126
                                                           rt
                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6.
    Indels
                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           532;
                                                                                                                                                                                                                                                                                            PAT 09-JAN-2002
   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
   2
                                                                                                                                                                                                                                                                                                                                    RESULT 15
AX335105
LOCUS
DEFINITION
ACCESSION
                       닭
                                                                                                              BASE CO
                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
 Ś
                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                          VERSION
                                                                 Query Match
Best Local S
Matches 531
                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                       COUNT
                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                     1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1012
                                            712
                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
  772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ь
                                                                                                                                                                                                                                                                                        Homo
GGCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                       110
```

```
AX335105
Sequence 56:
AX335105
AX335105.1
                                                                                                                                                                                                                                                                   Patent: WO 0194629-A 5614 13-DEC-2001; Avalon Pharmaceuticals (US)
                                                                                                                                                                                                                                                                                                         gene sets
                                                                                                                                                                                                                                                                                                                            Cancer gene
                                                                                                                                                                                                                                                                                                                                         Young, P.E., Augustus, M., Carter, K.C., Horrigan, S., Soppet, D.R. and Weaver, Z
                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                         Similarity
                      AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCGCTGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA 119:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTACCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACAACATGATATGTGCTGGACTGGACCGGGGCCAGGACCCCTTGCCAGAGTGACTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCAGTTACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCCCCAGTCGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5614 from Patent
                                                                                                                                                            /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
183 c 113 g 12
                                                                                                                                                                                                                                                    location/Qualifiers
                                                                                                                                                                                                                                                                                                                            determination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:18125824
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (human)
                                                                                     35.0%;
                                                                      0;
                                                                    Score 508.4; DB 6;
Pred. No. 1.7e-95;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             532 bp I
                                                                                                                                                                                                                                                                                                                        and therapeutic
                                                                                                                                                              126
                                                                                                                                                              r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                            Ebner, R.,
                                                                                                                                                                                                                                                                                                                        screening using signature
                                                                      Indels
                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                      . 532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAT
                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          771
0
                                  771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                    Ņ
```

TGCTGTGTG 532	AGCAGTTACTGGGGTCA-CCAACCTGACTTCCTCTGCCACTCCCTGCTGCTGTGTG	480	B
CGCTGTGTG 1245	GAGCAGTTACTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCCCCTGTGTG 1245	1192	Ş
TCACCCAGCCTCTGA 479	AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA	420	В
TCACCCAGCCTCTGA 1191	AAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGA	1132	Ş
HAGCTGAAATGCAGG 419	CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTGCCTGTACTGAAGCTGAAATGCAGG	360	묫
AAGCTGAAATGCAGG 1131	CTCTCACCTCATTCCCCCACCTATCCCCCATTCTCTCTGTCTG	1072	Ş
CTCTAAACATCTCCC 359	CTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCTCCACACCTCTAAACATCTCCC	300	Dβ
CTCTAAACATCTCCC 1071	CTCTCCCCTTGTCTGCACACTGTTCAAACCTCTGCGCCCCCCCACACCCTCTAAACATCTCCC	1012	8
CCCCAGTCGGCTGAA 299	CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCTCCTCCCCAGTCGGCTGAA	240	B
CCCCAGTCGGCTGAA 1011	CTGCTGATCCAGATGCCCAGAGGCTCCATCGTCCATCCTCCTCCTCCCCAGTCGGCTGAA	952	8
CCAGATGTTATGCTC 239	AAAGTCATACGCTCCAACTGATCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTC	180	DЬ
CCAGATGTTATGCTC 951		892	8
CATGTCCTGGATCAAT 179	GGCTCTG-CCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT	121	B
ATGTCCTGGATCAAT 891	GGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAAT	832	Ş
		61	뮹

Search completed: November 25, 2003, 06:34:41 Job time : 5451 secs

```
Database :
                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                SPTREMBL 23:*

1: sp_archea:*

2: sp_bacteria:*

3: sp_fungi:*

4: sp_human:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       November 25, 2003, 08:52:05; Search time 55 Seconds (without alignments) 1294.955 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             830525 segs, 258052604 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-021-368-1
1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MRAPHUHLSAASGARALAKL.....AVYTQICKYMSWINKVIRSN 276
                                                                                       sp_inverrebrate:*
sp_mammal:*
sp_mammal:*
sp_mhage:*
sp_organelle:*
sp_phage:*
sp_value:*
sp_virus:*
sp_vertebrate:*
sp_vertebrate:*
sp_vertebrate:*
sp_vertebrate:*
sp_vertebrate:*
sp_vertebrate:*
sp_vertebrate:*
sp_vertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               830525
```

16	15	14	13	12	11	10	vo	00	7	ø,	ហ	4.	w	N		Result No.
483	486	490	490	496	499.5	499.5	502	506	506	514	534	538	544	552.5	1028	Score
32.3	32.5	32.8	32.8	33.2	33.4	33.4	33.6	33.8	33.8	34.4	35.7	36.0	36.4	36.9	68.7	Query
247	254	275	246	246	276	246	250	276	249	255	249	253	260	234	278	Length
13	11	44		11	片	11	11	11	11	4	بر ب	4	44	11	11	80
Q9W7Q5	Q8CGR4	Q8IXD7	Q921R9	Q9QUK9	Q8CGR6	Q9R0T7	Q8CGR5	Q9QYN3	Q9QYN4	Q96RQ0	Q91VE3	Q8N5N9	69MI8D	Q9CV76	Q99M20	ED OIL
Q9w7q5 paralichthy		Q0ixd7 homo sapien		Bum		Q9r0t7 mus musculu	Q8cgr5 mus musculu					٠	Q8iw69 homo sapien	Q9cv76 mus musculu	Q99m20 mus musculu	Description

45	44	4 3	42	41	40	39	38	37	36	35	₩ 4	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
438	438	438.5	439.5	441.5	445.5	445.5	446.5	449.5	450.5	450.5	452	453	454	454	458	461	461	461.5	461.5	461.5	467.5	473.5	474.5	477	477.5	480.5	481	483
29.3	29.3	29.3	29.4	29.5	29.8	29.8	29.8	30.0	30.1	30.1	30.2	30.3	30.3	30.3	30	30	30	30	30	30.8	31.2	31.7	31.7	31.9	31.9		32.2	
675	249	235	261	251	247	239	244	245	242	222	238	247	247	240	251	241	239	253	246	244	237	242	247	247	251	247	234	293
13	ü	11	Φ	;;	44.	11	ű	ᇤ	13	13	Ļ	13	끕	13	4.	13	4.	ב	片	13	<u></u>	Ľ	1	11	11	12	11	11
Q9W6J8	Q9W6K0	Q63274	Q29474	Q9DBQ8	Q8NHM4	Q6327S	042159	042160	Q9W7Q7	Q8AV11	Q9W7Q6	042158	042608	Q98TH0	Q8N2U3	Q98TG9	Q8N1C9	Q91Y82	088301	Q8QGW3	Q91515	Q92099	Q9CPN9	Q9D7Y7	054854	Q9CPN7	Q9R048	Q9D140
Q9w6j8 dissostichu			Q29474 canis famil		Q8nhm4 homo sapien	Q63275 rattus norv				Q8av11 oncorhynchu				Q98th0 engraulis j	~	Q98tg9 engraulis j	Q8n1c9 homo sapien	Q91y82 mus musculu	Snu		fug	Q92099 paranotothe	Q9cpn9 mus musculu	Q9d7y7 mus musculu	O54854 rattus norv	Q9cpn7 mus musculu	ยนต	Q9d140 mus musculu

ALIGNMENTS

Qy db	Query Match Best Local : Matches 18:		DR PRINTS; DR SMART; S																			9 3 8
1 MRAPHLHLSAA 	Query Match Best Local Similarity 68. Matches 189; Conservative	PROSITE; PS00124; TRYPSIN_HIS; 1. Hydrolase; Protease; Serine protease, SEQUENCE 278 AA; 31043 MW; DD68B4	PRINTS; PR00722; CHYMOTRYPSIN. SMART; SM00020; Tryp_SPc; 1. PROSTTE: PS50240: TRYPSIN DOM:	Pfam; PF00089; trypsin; 1.	Pro; IPR001314; Pro; IPR001254;	MGD; MGI:1916790; 2300002A13Rik InterPro; IPR001314; Chymotryps InterPro; IPR001254; Ser_protea	P00763; 1DPO. S; S01.084; MGI:1916790; 23 Pro; IPR001314; Pro; IPR001254;	BC002100; AAH02100.1; P00763; 1DPO. \$\$, \$\$1.084; \$\$, \$\$1.084; MGI:1916790; 2300002A1 Pro; IPR001314; Chymot Pro; IPR001254; Ser_pr	-ISIMILARITY: BELONGS ENGL; BC002100; AAH02100 HSSB; P00763; 1DPO. MEROPS; SOI. 084; -20000 MGD, MGI:1916790; 230000 InterPro; IPR001314; Chi InterPro; IPR001254; Sel	tted (JAN-2001) to tted (JAN-2001) to IMILARITY: BELONGS BC002100; AAH0210 P00763; 1DP0 S; S01.084; - S; S01.084; - S; S01.084; - Pro; IPR001314; Ch Pro; IPR001254; Se	SEQUENCE FROM N.A. Strausberg R.; Submitted (JAN-2001) - -SIMILARITY: BELC EMBL; BC002100; AAHO HSSP; P00763; 1Dpo- MEROPS; S01.084; MEROPS; S01.084; MEROPS; S01.084; IREO01318; InterPro; IPR0013254; InterPro; IPR001254;	NORTH TO THE PROOF N.A. Sberg R.; Sterg R.; Lted (JAN-2001) Lted (JAN-2001) HMILARITY: BELC BC002100; AAH BC002100; IDPO- BC002100; IDPO- S; S01.084; - S; S01.084; - S; S01.084; - Fro; IPR001314; Pro; IPR001254;	Mammalia, Eutheria, NCBI_TaxID=1090; {1} {1} SEQUENCE FROM N.A. STRUSBERG R.; Strausberg R.; Submitted (JAN-2001) - - SIMILARITY: BELC EMBL; BC002100; AAH0 HSSP; P00763; 1DP0. HSROPS; S01.084; MEROPS; S0	Enkaryota; Metazoa; Mammalia; Eutheria; NCBI TaxID=10090; [1] TaxID=10090; [2] TaxID=10090; SEQUENCE FROM N.A. Strausberg R.; Submitted (JAN-2001) -! SIMILARITY: BELC EMBL; BC002100; AAHO HSSP; P00763; 1DPO. HSROPS; S01.084; - MEROPS; S01.084; - MEROPS; S01.084; - MEROPS; S01.084; - ThterPro; IPR0011254; InterPro; IPR0011254;	Mus musculus (Mouse) Bukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=10090; [1] SEQUENCB FROM N.A. Strausberg R.; Submitted (JAN-2001) -!-SIMILARITY: BBLO -!-SIMILARITY: BBLO HSSP; P00763; 1DPO. MEROPS; S01.084;	Z300002A13RIK. Z300002A13RIK. Z300002A13RIK. Mus musculus (Mouse) Bukaryota, Eutheriaza, Mammalia, Eutheriazoa, Mammalia, Eutheriazoa, MCBI_TaxID=10090, {1} SEQUENCE FROM N.A. SEQUENCE FROM N.A. SUDMITTER (JAN-2001) -!-SIMILARITY: BELO -!-SIMILAR	Ol. MAR-2003 (TrEMBLrel. 2 Similar to kallikrein 10. 230002A13rK. 230002A13rK. Mus muscullus (Mouse). Muscullus (Mouse). Chord Mammalia; Eutheria; Roden MCBI TaxID=10090; [1] - SEQUENCE FROM N.A. Strausberg R.; Strau	N-2001 (TrEMBLrel. R-2003 (TrEMBLrel. ar to kallikrein 1 02A13RIK. 02A13RIK. 04C18RIK. 05C18RIK. 05C18RITY: BELONGS 05C18RITY: BELO	N-2001 (TrEMBLrel. N-2001 (TrEMBLrel. R-2003 (TrEMBLrel. R-2003 (TrEMBLrel. R-2003 (TrEMBLrel. R-2003 (TrEMBLrel. OZALISRIK. OZALISRIK. OXALIDER (Mouse). Yota; Metazoa; Cho Lia; Eutheria; Rod TaxID-10090; TaxID-10090; TaxID-10090; NNCB FROM N.A. Sberg R.; Led (JAN-2001) to Lted (JAN-2001) to Lted (JAN-2001) to LTED (JAN-2001) SBC002100; AAH0210 P00763; 1DPO. S; S01.084; Seconol314; Cho Pro; IPR001254; Se	N-2001 (TrEMBLrel. N-2001 (TrEMBLrel. R-2003 (TrEMBLrel. ar to kallikrein 1 02A13RIK. 102A13RIK. (Mouse). yota; Metazoa; Cho lia; Eutheria; Rod faxID=10090; TaxID=10090; TaxID=10090; tted (JR.; tted (JR.; tted (JR.)	O PRELIMINARY; O PRELIMINARY; O PROBLEM O PROB	O PRELIMIN O; O; O; O; O; N-2001 (TrEMBLr N-2001 (TrEMBLr N-2003 (TrEMBLr R-2003 (TrEMBLr R-2003 (TrEMBLr N-2003 (TrEMBLr N-2001) INILARIY: BELC BECOG2100; AME BECOG2100;
MRAPHLHISAASGARALAK- <i>LLPILMAQIWAABAALLPQNDTRLDPEAYGAPCARGSQPW</i> 	5%;	RYPSIN HIS; ; Serine prot 31043 MW; I	PASTN DOM: '	sin; 1.	; Chymotrypsin. ; Ser protease Try.	916790; 2300002A13Rik. IPR001314; Chymotrypsin IPR001254; Ser protease	300002A13Rik ; Chymotryps:	.02100.1; 300002A13Rik ; Chymotryps; ; Ser protest	ONGS TO PEPT 02100.1; 300002A13Rik ; Chymotryps; ser protes;) to the EMBI ONGS TO PEPT: 02100.1; 300002A13Rik ; Chymotryps;) to the EMBI ONGS TO PEPT 02100.1; 300002A13Rik ; Chymotryps;) to the EMBI ONGS TO PEPT. 02100.1; 300002A13Rik ; Chymotypes;	Rodentia; Rodentia; to the EMONGS TO PEE 02100.1; 02100.213Ri 30002A13Ri 3Chymottye; Ser proty	Chordata; Rodentia; Rodent	Chordata; Rodentia; Rodentia; Rodentia; Chordata; Rodentia; Rodentia; Colonata; Colonata; Rodentia; Rodent	Chordata; Rodentia; Rodentia; Rodentia; Cothe EM	n 10. n 10. chordata; Rodentia; Rodentia; Rodentia; Rodentia; Rodentia; Country Rodentry; Ser protry;	eel. 17, La eel. 23, La n 10 10 Chordata; Rodentia; Rodentia; 10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	rel. 17, Creel. 17, Creel. 17, Lannel. 23, Lannel. 23, Lannel. 21,	el. 17, Cr el. 17, La el. 23, La n 10. Chordata; Rodentia; Rodentia; Rodentia; Rodentia; County Coun	PARY; cel. 17, Cr el. 17, La el. 23, La n 10. n 10. chordata; Rodentia; Rodentia; Rodentia; 10 the EM NGS TO PBE 2100.1; 00002A13Ri 00002A13Ri Ser protery Ser protery	PARY; el. 17, Cx el. 17, La el. 23, La n 10. Chordata; Rodentia; Rodentia; Rodentia; 10 the EW 10 TO PBE 2100.1; 00002A13Ri Ser protry
PLLMAQLWAAE PLLMVQLWAAG	Score 1028; DB Pred. No. 7e-92; 33; Mismatches	1. htease. DD68B44E9AECCF55	·	,	in.	in.	in.	in.	TO PEPTIDASE FAMILY S1. 2.1; 22A13Rik. 02A13Rik. 0 rorthage Try	IL/GenBank/EIDASE FAMII	IDASE FAMII	IL/GenBank/UIDASE FAMII	Ciurognathi L/GenBank/U LDASE FAMII	Sciurognathi Sciurognathi BL/GenBank/E TIDASE FAMII k. ki.	raniata; Ve ciurognathi L/GenBank/I IDASE FAMII	raniata; Ve ciurognathi L/GenBank/t IDASE FAMII	rannotatio raniata; Ve ciurognathi L/GenBank/F IDASE FAMII	t sequence update) st annotation update) 'raniata; Vertebrata; sciurognathi; Muridae sciurognathi; Muridae 'IDASB FAMILY S1.	Created) Last sequence Last sequence Last annotatic Craniata; Ve (; Sciurognathic (; Sciurognathic) EMBL/GenBank/F EMPTIDASE FAMII Rik. Rik. Rik. Rik.	ated) t sequence st annotatio Traniata; Ve sciurognathi TDASE FAMII TDASE FAMII	PRT; 278 P eated) ist sequence ist amotatic Craniata; Ve Sciurognathi Sciurognathi FIL/GenBank/E FIDASE FAMII NIDASE FAMII k. k.	RT; 278 Fated) aated) tated) traniata; Ve sciurognath; VIDASE FAMII TIDASE FAMII TIDASE FAMII
SAALLPONDTRL : ALLLPGNATRV	DB 11; 92; 52;	%CCF55 CRC64;							y \$1.	EMBL/GenBank/pdbJ databases EPTIDASB FAMILY \$1. Rik. Rik. tease Try.	рВJ databas X S1.	DBJ databas Y \$1.	i, Muridae; DBJ databas Y S1.	idae; idae; ataba	i; Muridae; E i; Muridae;) DBJ databas X S1.	artebrata; E i; Muridae;) DBJ databas)Y S1.	on update) artebrata; E i; Muridae; i) DBJ databas X S1.	update) m update) irtebrata; E i; Muridae; i/ Muridae; i/ Muridae;	update) on update) sytebrata; E i; Muridae; ; ip Muridae; ;	update) m update) zrtebrata; E i; Muridae; i iy Matabas	update) on update) on update) i; Muridae; E i; Muridae; S	AA. update) nupdate) pritebrata; E i; Muridae; : ij Muridae; : y S1.
DPEAYGAPCA LEASGAQCE	Length 278; Indels 2;	••								&	6	o v	Murinae; M	Euteleostomi; Murinae; Mus ses.	Murinae; M murinae; M	Murinae; M	Murinae; M	Murinae; M	Murinae; M es.	Murinae; M	Murinae; M	Murinae; M
RGSQPW 59	Gaps 2												us.	យ ភ. ទ.	ជ <u>ំ</u> .	ជ <u>ា</u> .	ជ <u>ភ</u> .	ធ.	ជ គ. » •	ធ <u>ុ</u>	យ ; .	ជ <u>ា</u> .

Ν

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                               RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arakawa T., Hara A., Fukunishi Y., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Xiyosawa H., Kondo S., Yamanaka I.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tonita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Hofman M., Carninci P., de Bonaldo M.P.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Bushincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashina J., Mazzarelli J., Mombaerts P.,
RA Mordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Maynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Haynshizki Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001 (TrEMBLrel. 1/, Lest de 01-MAR-2003 (TrEMBLrel. 23, Last de 2310008B01Rik protein (Fragment).
                                                                                                                                                                                                                                                                                                     Wynshaw-Boris A
Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                               PRINTS; PRO0722; CHYMOTRYPSIN.
SMART; SM00020; Tryp_SPC; 1.
PROSITE; PSS0240; TRYPSIN_DM; 1.
PROSITE; PS00134; TRYPSIN_HIS; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=C57BL/6J; TISSUE=Tongue; MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus muscullus (Mouse),
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                            Pfam; PF00089; trypsin; 1.
PRINTS; PR00722; CHYMOTRYPSIN.
                                                                                                                                                                                                                                                               MEROPS; S01.020; -.
MGD; MGI:1916761; 2310008B01Rik.
                                                                                                                                                                                                                                                                                                                                                                                     "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9CV76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9CV76
                                                                                                                                                                                                           InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
Dfam. DD00088. trvnsin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2310008B01RIK.
                                                                             arolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LHGVLSWGIYPCGAAQHPSVYSBICKYTPWIRRVIR 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SRRVKYNRSLSCSKVTLLSQXQCETFYPGVITNSMICAEADGNQDSCQSDSGGPLVCDDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCD8T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QVSLFNGLSFHCAGVLVDQSWVLTAAHC-GNKPLWARVGDDHLLLLQGBQLRRTTRSVVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOGILSWGVYPCGSAOHPAVYTQICKYMSWINKVIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PKYQACSGPILPHRSDEHDLMMLKLSSPVMLTSNVHPVQLPFRCSQPGQECQVSGWGTSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTA 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QVSLFHNLQFQCAGVLVDQNWVLTAAHCWRNKPLRARVGDDHLLLFQKEQLRSTSSPVFH
                                                                             Protease; Serine protease.
                                         234 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                         25888 MW; 6D81E609EDD39110 CRC64;
    36.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
    Score 552.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
DB 11; Length 234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118
```

GNSN8Ö

Q8N5N9;

PRELIMINARY;

PRT;

253

3

01-OCT-2002 01-OCT-2002 01-MAR-2003

(Tremblrel. (Tremblrel. (Tremblrel.

22,

Created)

Last sequence update)
Last annotation update)

```
RESULT 3
RESULT 4
                                                                                                                                                  á
                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC CONTRACTOR OF THE PROPERTY 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       딹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity Matches 112; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q8IW69 PRELIMINARY; PRT;
Q8IW69; (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last seq
01-MAR-2003 (TrEMBLrel. 23, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg R.; submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases. EMBL; BC040887; AAH40887.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hypothetical
SEQUENCE 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical protein. Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                             245
                                                                                                                                                         262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            168 QCQVAGWGTTAARRVKYNKGITCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12 GVECVKNSOPWQVGLFHGKYLRCGGVLVDRKWVLTAAHCRDKYV-VRLGEHSLTKLDWTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49 GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQ-GE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23 LIMAQIMAABAALLPQNDTRIDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                     KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                          ICRYLDWIKKIIGS 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLLGGAWAGHSR--AQEDKVLG----GHECQPHSQPWQAALFQGQQLLCGGVLVGGNWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DSGGPLVCGGVLQGLVSWGSVGPCGQKGIPGVYTKVCKYTDWIRIVIRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLRHTTFSITHPSY-QGA-----YQNHEHDLRLLRLNRPIHLTRAVRPVALPSSCVTTGA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGD
                                                                                                                                               ICKYMSWINKVIRS
                                                                                                                                                                                                                     EDAYPGQITDVMVCAGSSKGADTCQGDSGGPLVCDGALQGITSWGSDPCGRSDKPGVYTN
                                                                                                                                                                                                                                                                              EVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQ 261
                                                                                                                                                                                                                                                                                                                                                QLRDQASLGSKVKPISLADHCTQPGQKCTVSGWGTVTSPRENFPDTLNCAEVKIFPQKKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAHCKKPKYTVRLGDHSLQNKDGPEQEIPVVQSIPHPCYNSSD-----VEDHNHDLMLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DSGGPLVCDETLOGILSWG-VYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MCHVSGWGTTNKPWDPPPDRLQCLNLSTVSNETCRAVFPGRVTENMLCAGGEAGKDACQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein.
60 AA; 28090 MW; EF5934EB96295660 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36.4%;
43.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             48.7%;
                                                                                                                                                         275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 544; DB 4;
Pred. No. 8.5e-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No. 1.1e-45;
smatches 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                184
                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ຫ
```

```
Q31VEJ 5
Q31VEJ 10
Q31VEJ 01-D
DT 01-D
DT 01-D
DT 01-M
DE Thym
DE (chy
GN KLK7
GN KLK7
GN KLK7
GN MAMM
DE UCA
GN MAMM
DE THYM
DE (Chy
GN MAMM
DE THYM
DE CHY
GN MAMM
DE THYM
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멎
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR001254; Ser_protease_Try.
Pfam; PP00089; trypsin; 1.
PRINTS; PR00072; CHYMOTRYPSIN.
SMART; SW00020; Tryp SPC; 1.
SMOSITE; PS00240; TRYPSIN_DOM; 1.
PROSITE; PS00134; TRYPSIN_HIS; 1.
PROSITE; PS00134; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
SEQUENCE 253 AA; 27608 MW; 2D68B6A41
                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 23, Last annotation update)
101-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Thymopsin (Stratum corneum chymotryptic enzyme) (Kallikrein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg R.;
Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
EMBL; BC032005, AAH32005.1; -.
INTERPRO; IRR001314; Chymotrypsin.
        Hansson L., ва
Wallbrandt P.,
                                     STRAIN-129/SvJ;
Hansson L., Bac
                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                     Yamaguchi N.; "A novel cDNA
                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q91VE3
                                                                                           SEQUENCE FROM N.A.
                                                                                                                                           Submitted (OCT-1997)
                                                                                                                                                                                                                     fissue~Thymus;
                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kallikrein 7
                                                                                                                                                                                                                                                                                                                                                                                                                                     (chymotryptic, stratum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                  cDNA cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xclsepdctkvykdllensmlcAgipdskknacngdsggplvcrgflqglvswgffppgq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HVNDLMLVKLNSQARLSSMVKKVRLESRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VLVNERWYLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ARSULLPLQILLLSLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
Backman A., Ny
P., Egelrud T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative 45; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (chymotryptic, stratum corneum)
                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.0%;
                                                                                                                                        y of mouse serine protease,
to the EMBL/GenBank/DDBJ da
                                                                                                                                                                                                                                                                                                                                                                                                                                     corneum).
                                  NY A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 538;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2D68B6A41B22A668 CRC64;
                                       Edlund
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     249
                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.1e-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ξ
                                     Edholm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98;
                                                                                                                                           databases.
                                                                                                                                                                  Thymopsin, i.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 253;
                                  ;
51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                     Tornell J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57
```

```
RESULT 6
Q96RQ0
                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                               Q96RQ0;
                    Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Epidermal overexpression of stratum corneum chymotryptic enzyme mice; a model for chronic ithchy dermatitis."; Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                           01-MAR-2003
                                                                                                       01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hydrolase;
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS50240; TRYPSIN DOM; 1.
PROSITE; PS00134; TRYPSIN HIS; 1.
PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the RIKEN Genome Exploration Research Group "Analysis of the mouse transcriptome based c 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
SEQUENCE FROM N.A.
                                                             Homo sapiens (Human)
                                                                             Prostinogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00089; trypsin; I.
PRINTS; PR00722; CHYMOTRYPSIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGD; MGI:1346336; Klk7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        - i - SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=22354683; PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                              194
                                                                                                                                                                                                                                                                                                                        105
                                                                                                                                                                                                              225 PNDPGVYTQVCKYKRWVMETMKTH 248
                                                                                                                                                                                                                                                                                                                                               134 DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGT~AARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AK029477;
AK077406;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BC027823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AB008371;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF339930,
                                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                                                                                                                                                                                                                                                                                                     77
                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P00761; 1AN1
                                                                                                                                                                                                                                                                                                                                                                                                                                 v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                TILSPKECEVFYPGVVINNMICAGL-DRGQDPCQSDSGGFLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                                                                                                       HUNDIMLVRIDEPVRASSKVEAVQLPEHCEPPGTSCTVSGWGTTTSPDVTFPSDLMCSDV
                                                                                                                                                                                                                                        AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                   KLISSRECKKYYKDILGKTMLCAGIPDSKTNTCNGDSGGPLVCNDTLQGLVSWGTYPCGQ
                                                                                                                                                                                                                                                                                                                                                                                                    DQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLR---RTTRSVVHPKYHQGSGPILPRRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        LAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLV
                                                                                                                                                                                                                                                                                                                                                                          DKYWVLTAAHCKMGQYQVQLGSDKI----GDQSAQKIKATKSFRHPGY-----STKT
                                                                                                                                                                                                                                                                                                                                                                                                                                 LLSLITVLLS--LALETA--GQGERIID----GYKCKEGSHPWQVALLKGNQLHCGGVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (APR-2002) to the EMBL/GenBank/DDBJ databases
                                                                                       (TrEMBLrel.
(TrEMBLrel.)
(TrEMBLrel.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protease; Serine protease.
249 AA; 27257 MW; OD4E380F12D14F87 CRC64;
                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BAB55604.1; -.; AAK69652.1; -.; AAH27823.1; -.; BAC26467.1; -.; BAC36787.1; -.;
                                      Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35.7%; Score 534; DB 11; Length 249; 40.2%; Fred. No. 7.6e-44;
                                                                                        19,
19,
23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45;
                                                                                       Last sequence update)
Last annotation update)
                                                                                                                    Created)
                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                based on functional annotation
                                                                                                                                             255 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Phase I & II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inde1s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Team;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of.
                                                                                                                                                                                                                                                                                                                                                                                                     133
                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                    224
                                                                                                                                                                                                                                                                                             252
                                                                                                                                                                                                                                                                                                                       164
                                                                                                                                                                                                                                                                                                                                                                          104
```

```
RESULT PROPERTY OF THE SECOND PROPERTY OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOOR RESERVED TO SOOR R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                             TISSUE=Brain;
Mitsui S., Yam
"cDNA cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O9QYM4,
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last seq
01-MAR-2003 (TrEMBLrel. 23, Last ann
HIPPOSTASIN (2310015108RIK protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00722; CHYMOTRYPSIN.
SMART; SM00020; Tryp SPC; 1.
PROSITE; PS50240; TRYPSIN_DOM; 1.
PROSITE; PS000134; TRYPSIN_HIS; 1.
Hydrolase; Protease; Serine prote;
SEQUENCE 255 AA; 27986 MW; 001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochemistry 40:1679-1687(2001).
-!- SIMILARITY: BELONGS TO PETTIDASE FAMILY S1.
EMBL; AF333046; AAK62813.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=21226193; PubMed=11327827;
Takayama T.K., Carter C.A., Deng T.;
"Activation of prostate-specific ant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              prostin, a novel
degenerate PCR.";
Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Arakawa T., Hara A., Fukunishi Y., Komno H., Adachi J., Fukuda Arakawa Y., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito
                                                                                                                                          STRAIN=C57BL/6J; TISSUE=Tongue; MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Metazoa;
Mammalia; Eutheria:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRSS20 OR 2310015108RIK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR001314; Chymotrypsin, InterPro; IPR001254; Ser_protease_Try. Pfam; PF00089; trypsin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEROPS; S01.081; -
                                                                                                                                                                                                                                                                                                 Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9QYN4
                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rocar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
alia; Sutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P00761; 1AN1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AEGRGAESCEGDSGGPLVCGGILQGIVSWGDVPCDNTTKPGVYTKVCHYLEWIREIMKRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GDECAPHSQPWQVALYERGRENCGASLISPHWVLSAAHCQSREMRVRLGEHNLRKRDGPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LD-RGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAPCARGSQPWQVS.IFNGLSFHCAGVIVDQSWVLTAAHCGNKPLWARVGDDHILLILQG-E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACVVSGWGLVSHNEPGTAGSPRSQVSLPDTLHCANIGIISDTSCDKSYPGRLINTMVCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QCQVAGWGTTA-----ARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QURTISRVIPHPRYE-----ARSHRNDIMLIRLVQPARLNPQVRPAVLPTRCPHPGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OLERTTRSVVHPKYHOGSGFILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGD
                                                                                                                                                                                                                                                                                             (JAN-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N., Mitsui
(JUL-1998)
                                                                                                                                                                                                                                                                                                                             Yamagushi N.;
ing of a novel brain serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human prostatic serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34.4%;
                                                                                                                                                                                                                                                                                                 ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ر
د
د
                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protease
                                                                                                                                                                                                                                                                                             ain serine protease, Hippostasin.";
EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 514; DB 4;
Pred. No. 6.9e-42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           00D5B79E14B9468F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antigen precursor (pro-PSA) by serine protease identified by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  249 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
a H a K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      167
```

```
RESULT 8
Q9QYN3
ID Q9QY
                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ŗ
   RRRRRRRR ROCCOS GREAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEROPS; $01.257;

MGD; MGI;1929977; Prss20.

InterPro; IPR001254; Ser_protease_Try.

Pfam; PF00089; trypsin; 1.

SMART; SM00020; Tryp SPc; 1.

PROSITE; PS00240; TRYPSIN DOM; 1.

PROSITE; PS00144; TRYPSIN HIS; 1.

PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T., Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H., Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J., Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F., Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Lyons P., Marchionni L., Mashima J., Mazzarelli J., Hombaerts P., Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N., Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., Hayashiyaki Y.,
                                                                                                                                                                                                                          Q9QYN3
Q9QYN3;
Q1-MAY-2000
Q1-MAY-2000
Q1-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AB016226; BAA88825.1; -. EMBL; AK009720; BAB26461.1; -. EMBL; AK009360; BAB26241.1; -. HSSP; P00763; 1DPO.
                                              Yamaguchi
Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hydrolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nature 409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hayashizaki Y.; "Functional annotation of a full-length mouse cDNA collection.";
SEQUENCE FROM N.A. TISSUE-Prostate;
                                                                                                                                             Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                               Hippostasin
PRSS20.
                                                                                            SEQUENCE FROM N.A.
                                                                          FISSUE=Prostate
                                                                                                                          NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                      227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                       SCLISGWGTTSSPQLRLPHSLRCANVSIIEHKECEKAYPGNITDTMLCASVRKEGKDSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLLQG-E
                                                                                                                                                                                                                                                                                                                                                                         GDSGGPLVCNGSLQGIISWGQDPCAVTRKPGVYTKVCKYFNWIHEVMRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLERTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGD 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GYECRPHSQPWQVALFQKTRLLCGATLIAPKWLLTAAHCRKPHYVILLGEHNLEKTDGCE
                                                                                                                                                                                                                                                                                                                                                                                                   SDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDR-GQDPCQ 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QRRMATESFPHPDFNNS----LPNKDHRNDIMLVKMSSPVFFTRAVQPLTLSPHCVAAGT
                                              N., Mitsui
(JUL-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protease; Serine p
249 AA; 27604 MW;
                                                                                                                                                                                                                          (TrEMBLrel. 13, (TrEMBLrel. 13, (TrEMBLrel. 23,
                                                                                                                                                                                                           prostate
                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33.8%;
                                                                                                                                                                                                       type.
                                              S.;
to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protease.
W; F9FF9CB457D727D5 CRC64;
                                                EMBL/GenBank/DDBJ
                                                                                                                                                                                                                          Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 506; DB 1
Pred, No. 4e-41;
                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                            276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 11; Length 249;
                                                                                                                                                                                                                                                                                          A
                                                                                                                                                                                                                            update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85:
                                                databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                         249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

```
RESULT OCCUPANT OCCUP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            路
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SO CANADO DE RACO COCCARTA X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R MEROPS; S01.257; -...

R MGD; MGI:J029977; Prss20.

R InterPro; IPR001314; Chymotrypsin.

R InterPro; IPR001254; Ser protease Try.

R Pfam; PF00089; trypsin; 1.

R PFINTS; PR00722; CHYMOTRYPSIN.

R SMART; SM00020; Tryp SPC; 1.

R SMART; SM00020; Tryp SPC; 1.

R PROSITE; PS00134; TRYPSIN DOM; 1.

R PROSITE; PS00134; TRYPSIN SER; 1.

R PROSITE; PS00135; TRYPSIN SER; 1.

R PROSITE; PS00135; TRYPSIN SER; 1.

R PROSITE; PS00135; TRYPSIN SER; 1.

N Hydrolase; Protease; Serine protease.

SEQUENCE 276 AA; 30753 MW; 90BDC03A8AB178D6 CRC64;
                                                      Query Match
                                                                                             Adams M., Mural R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AYI52433; AAN78421.1; -.
SEQUENCE 250 AA; 27016 MW; F62FEBF2290FEBE8 CRC64;
                                                                                                                                                                           SEQUENCE FROM N.A. Adams M., Mural R.,
                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=22325484; PubMed=12437987;
Olsson A.Y., Lundwall A.;
"Organization and evolution of the glandular kallikrein locus in
                                                                                                                                                                                                                                                                                                                                                                                                                                Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2003
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mitsui S., Okui A., Kominami K., Üemura H., Yamagushi N "cDNA cloning and tissue-specific splicing variants of hippostasin/TLSP (PRSS20).";
Biochim. Biophys. Acta 1494:206-210(2000).
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
EMBL; AB016227; BAA36955.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8CGR5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P00763; 1DPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=20525460; PubMed=11072088;
                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95;
                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  003 (TrEMBLrel. 23,
003 (TrEMBLrel. 23,
003 (TrEMBLrel. 23,
003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                       Biophys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GDSGGPLVCNGSLQGIISWGQDPCAVTRKPGVYTKVCKYFNWIHEVMRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QREMATESEPHEDENNS----LENKDHRNDIMLVKMSSEVFETRAVOPLILSPHCVAAGT 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLRRTTRSVVHPKYHQGSGFILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLLQG-E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCLISGWGTTSSPQLRLPHSLRCANVSIIEHKECEKAYPGNITDTMLCASVRKEGKDSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDR-GQDPCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GYECRPHSÓPWÓVALFOKTRLLCGATLIAPKWLLTAAHCRKPHYVILLGEHNLEKTDGCE
          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative 44;
                                                                                                                                                                                                                                                       Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33.8%;
                            39.8%;
                                                    33.6%;
                                                                                                                                                                                                                                                    Commun. 299:305-311(2002)
       43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation updat
Score 502; DB 11;
Pred. No. 9.9e-41;
3; Mismatches 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 506; DB
Pred. No. 4.5e
14; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250
                                            DB 11; Length 250;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .5e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamagushi N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 276;
     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mouse
  18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus
Su
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                110
6,
```

```
RESULT 10
Q9R0T7
ID Q9R0T
          RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml I.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Hyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Mordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Mynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Havashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮻
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9ROT7
Q9ROT7;
Q9ROT7;
01-MAY-2000
01-MAY-2000
01-MAR-2003
MEDLINE=21103195; PubMed=11160223;
Chen F., Rowen L., Hood L., Rothenberg E.V.;
"Differential transcriptional regulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIINE=99436155; PubMed=10506205; Ohmura K., Kohno N., Kobayashi Y., Yamagata K., Kashiwabara S., Baba T.; Rashiwabara S., Baba T.; "A homologue of pancreatic trypsin is localized mammalian sperm and is released during acrosome J. Biol. Chem. 274:29426-29432(1999).
                                                                                                                                                             Wynshaw-Boris A
Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=C57BL/6J; TISSUE=Stomach, MEDLINE=21085660; PubMed=11217851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Pancreatic trypsin (0910001B19RIK protein) (Trypsinogen
TD OR 0910001B19RIK OR TRYPSINOGEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                        ional annotation of a full-length mouse cDNA collection.", 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 LLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLS--FHCAGVLVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 LLIILQA---LAVATAQSQGDHKI---IGGYRCVKNSQPWQVALQAGPGHRFLCGGVLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DQWVITAAHCARPILHVALGKHNIRRWEATQQVVRVARQVPHPQYQP-----QAHDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPKECEVFYPGVVYNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DLMLLKLOKKVRLGRAVKTISVASSCASÞGTÞCRVSGWGTIASPIARYPTALOCVNVNIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DLMILKLARPVVPGBRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITIL 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PGVYANLCNYHSWIQRTMQSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQACHRAYPGIITSGMVCAGVPEGGKDSCQGDSGGPLVCGGQLQGLVSWGMERCAMPGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QSWVLTAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and Spleen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              246 AA
  of individual TCR Vbeta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in the acrosome reaction.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>&</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77
```

```
RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멇
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SQ CERT
  SORE PROPERTY OF SORE P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              몂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam, PF00089; trypsin; T.

RINTS, PR00722; CHYMOTRYPSIN.

SMART; SM00020; TRYPSIN_DOM; 1.

PROSITE; PS50240; TRYPSIN_DOM; 1.

PROSITE; PS00134; TRYPSIN_HIS; 1.

PROSITE; PS00135; TRYPSIN_SER; 1.

Hydrolase; Protease; Serine protease.

Hydrolase; Protease; Serine protease.
                                                                                                                                                                                                                                                                                                             Alanu...
KLK13.
Mus musculus (Mouse).
Merazoa; Chordata;
Merazoa; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
SEQUENCE FROM N.A.
Adams M., Mural R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AY152432; AAN76420.1; -.
SEQUENCE 276 AA; 30360 MW; 33E189C67492FDCA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2003 (TrEMBLrel. 23, 01-MAR-2003 (TrEMBLrel. 23, 01-MAR-2003 (TrEMBLrel. 23, Glandular kallikrein KLK13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSSP; P00763; ISLU.
MEROPS; S01.057; -.
MGD; MGI:1913350; 0910001B19Rik.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001284; Ser protease_Try.
                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE=22325484; PubMed=12437987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q8CGR6
                                                                                                                                         Biochem.
                                                                                                                                                                                                                 Olsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q8CGR6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  segments before gene rearrangement.";
J. Immunol. 166:1771-1780(2001).
                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                     "Organization and evolution of the glandular kallikrein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AK008667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AK003064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AB017032;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AE000664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                         Biophys. Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LNNDIMLIKLASPYTLNARVATVALPSSCAPAGTQCLISGWGNTLSFGVNNPDLLQCLDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEHDLMLIKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RAL-----LFLALVGAAVA--FPVDDD--DKIVGGYTCRENSVPXQVSLNSGYHF-CGGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PILPQADCEASYPGKITNNMICVGFLEGGKDSCQGDSGGPVVCNGQLQGIVSWG-YGCAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LINDQWVVSAAHCYKSRIQVRLGEHNINVLEGNEQFVNSAKIIKHPNFNS------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LVDQSWVLTAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RALAKILPILMAQIWAAEAAILPQNDTRIDPEAYGAPCARGSQPWQVSIFNGISFHCAGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KDNPGVYTKVCNYVDWIQNTIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TILSPKECEVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                 Lundwall
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BAA74761.1; -.; BAB25821.1; -.; BAB22542.1; -.; AAB69056.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33.4%;
                                                                                                                                                                                                              A
                                                                                                                                         Commun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TO PEPTIDASE FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 499.5;
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                           299:305-311 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                À
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                     locus in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
                                                                                                                                                                                                                                                                                                                                 Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103
```

```
RESULT 12
Q9QUK9
ID Q9QUK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                RC STRAIN-C57BL/J; TISSUB-Pancreas;

RX MRDLINE-2108560; pubMed-11217851;

RA MRDLINE-2108560; pubMed-11217851;

RA Arakawa T., Hara A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

RA Arakawa T., Hara A., Shibata K., Konno H., Adachi J., Fukuda S.,

RA Arakawa T., Hara A., Fukunishi Y., Konno H., Kasukawa T., Saito R.,

RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kasukawa T., Saito R.,

RA Aizawa K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,

RA Fleischmann W., Gaasterland T., Ring B., Kochiwa H.,

RA Fleischmann W., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

RA Kuehl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,

RA Kuehl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Lee N.H.,

RA Hyons P., Marchiomi L., Mashima J., Mazzarelli J., Mombaerts P.,

RA Myrshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,

RA Hayashtaski Y., I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9QUK9 PRELIMINARY; PRT; 246 AA.
Q9QUK9; PLANX-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
TESP4 (0910001B19RIK protein) (Trypsinogen 9).
TC OR 0910001B19RIX OR TRYPSINOGEN.
MEDLINE=21103195; PubMed=11160223; Chen F., Rowen L., Hood L., Rothenberg E. "Differential transcriptional regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIJINE=99436155; PubMed=10506205; Ohmura K., Kohno N., Kobayashi Y., Yamagata K., Kashiwabara S., Baba T.; Kashiwabara S., Baba T.; A homologue of pancreatic trypsin is localized mammalian sperm and is released during acrosome J. Biol. Chem. 274:29426-29432(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                             SEQUENCE FROM
STRAIN=129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49
                                                                                                                     409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLL--LLQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCEGDSGGPLICNGKLYGIISWGDFPCGQPNRPGVYTRVSKYLRWIREIIRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCCRVSGWGTTTSPQVNYPKTLQCANIELRSDEECRQVYPGKITANMLCAGTKEGGKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGL-DRGQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GYTCLPHSQPWQAALLIRGRILCGGVLVHPKWVLTAAHCRKDGYTVHLG-KHALGRVENG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EQAMEVVRSIPHPEYQ-----VTPTHLNHDHDIMLLELKSPVQLSSHVRTLKLSADDCLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EQLERTTRSVVHPKYHQGSGPILPRRTD-EHDLMLLKLARPVVPGPRVRALQLPY-RCAQ
                                                                                                                                      annotation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43.5%;
                                                                                                                                   b
                                                                                                                                        full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 499.5; DB 1
Pred. No. 1.9e-40;
4; Mismatches 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
                      B.V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acrosome reaction.";
      of individual TCR Vbeta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86;
                                                                                                                                        CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in the acrosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11;
                                                                                                                                                                                                                К. - F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
```

```
Q921P9
ID Q921R
Q921P
AC Q921R
AC Q921R
DT 01-MA
DT 01-MA
DT 01-MA
DT 17YDS
GN 17YGS
GN 17YGS
GN 17YGS
GN 17YGS
GN 17YGS
GN 111-
RN (111-
RP SEQUE
RC STRAI
RA ROWEN
RA ROWEN
RT Cebl1
RA ROWEN
RT Cebl1
RJ SUDMI
RN (2)
RF SEQUE
RC STRAI
RX GWEN
RT Cebl1
RX GUDMI
RN (2)
RF SEQUE
RC STRAI
RX GWEN
RY SEQUE
RC STRAI
RX GWEN
RN (2)
RP SEQUE
RC STRAI
RX MEDUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               앎
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ర్జ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              융
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00089; trypsin; 1.

PRINTS; PR00722; CHYMOTRYPSIN.

SMART; SM00020; Tryp SPc; 1.

PROSITE; PS50240; TRYPSIN DOM; 1.

PROSITE; PS00134; TRYPSIN HIS; 1.

PROSITE; PS00135; TRYPSIN ESR; 1.

PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                                                                                                                          Trypsinogen 16.
TRYGNIG OR TRYSINOGEN.
Mus musculus (Mouse).
Bukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       segments before gene rearrangement.";

J. Immunol. 166:1771-1780(2001).

-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
EMBL; AB009661; BAASS187.1;
-.
EMBL; AB017031; BAA74760.1;
-.
EMBL; AK007843; BAB25300.1;
-.
WBDLINE-21103195; PubMed=11160223;
Chen F., Rowen L., Hood L., Rothenberg E.V.;
"Differential transcriptional regulation of individual TCR Vbeta
segments before gene rearrangement.";
                                                                                                               Rowen L., Hood L.;
"Comparison between strains Balb/C and 129 in a region of the cell receptor beta locus.";
Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGD; MGI:1913350; 0910001B19Rik.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                               01-MAY-1999
                                                                                                                                                                                                                                                                                                                                                               01-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                               Q9Z1R9;
                                                                                                                                                                                                                                                                                                                                                                                                Q9Z1R9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HSSP; P00763; 1DPO.
                                                                  STRAIN=BALB/c;
                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                  STRAIN=Balb/c;
                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AE000664; AAB69057.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S01.058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVCNYVDWIQDTIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSEHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QIÇKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LFLALVGAAVA--FÉVDDD--DKIVGGYTCRENSIFYQVSLNSGYHF-CGGSLINDQWVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EASYPGKITNNMICVGFLEGGKDSCQGDSGGPVVCNGQLQGIVSWG-YGCALKDNPGVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KLASPVTLNARVATVALPSSCAPAGTQCLISGWCNTLSFGVNNPDLLQCLDAPLLPQADC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAAHCYKTRIQVRIGEHNINVLEGNEOFVNSAKIIKHPNFNS------RTLANDIMLI
                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 10, (TrEMBLrel. 10, (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 AA; 26277 MW; 915C92353EC42809 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33.2%; Score 496; DB 11; ilarity 41.0%; Pred. No. 3.7e-40; Conservative 41; Mismatches 94
                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                          Last sequence update)
                                                                                                                                                                                                                                                                                                                                                             Created)
                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                PRT:
                                                                                                                                                                                                                                                                                                                                                                                              246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 11; Length 246;
                                                                                                                                                                                                                                                                                                                                                                                              AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16;
                                                                                                                                               mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7
```

```
RESULT 14
Q81XD7
     밁
                                                 Ś
                                                                                                                                                                                                                      AC COCC OFF RESERVED TO THE SERVEN SERVED TO THE SERVEN SERVED TO THE SERVEN SERVED TO THE SERVED THE SERVED TO TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                              Matches 104;
                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     U. Immunol, 166:1771-1780(2001).

-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY EMBL; AP107342; AAC79093.1; -.
EMBL; AE000665; AAB69088.1; -.
HSSP: P00763; 1DPO.
MEDDRE CO. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2003
01-MAR-2003
01-MAR-2003
                                                                                                                                                                                                                                                         Nakamura T., Mitsui S., Miki T., Yamaguchi N.;
Nakamura T., Mitsui S., Miki T., Yamaguchi N.;
"Molecular cloning and expression of a variant form of
hippostasin/KLK11 in prostate.";
Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEROPS; S01.063; ...
MGD; MGI:2148749; Trygn16.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
Pfam; PF00089; trypsin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR00722; CHYMOTRYPSIN.
SMART; SM0020; TRYP_SPC; 1.
PROSITE; PS50240; TRYPSIN_DOM; 1.
PROSITE; PS00134; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
                                                                                                                                                                                                                EMBL; AB078780; BAC54105.1; SEQUENCE 275 AA; 30165 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Variant form hippostasin/KLK11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QSIXD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8IXD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                           POCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     142 KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                 19 KLIPPILMAQIMAAEAALIPQNDTRIDPEAYGAPCARGSQPWQVSIFNGLSFHCAGVLVDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 LIMAQIWAAEAALLPQNDTRIDPEAXGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ທ
     N
                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVCNYVDWIQDTIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EVEXPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RILQUILLAL----ATGLVGGETRI----IKGFECKPHSQPWQAALFEKTRILCGATLIAP 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EASYPGKITGNMVCAGFLEGGKDSCQGDSGGPVVCNGELQGIVSWG-YGCALPDNPGVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KLSSPVTLNARVATVALPSSCAPAGTOCLISGWGNTLSFGVSEPDLLQCLDAPLLPQADC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAAHCGNKPLWARVGODHLLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LFLALVGAAVA--FPVDDD--DKIVGGYTCRENSVPYQVSLNSGYHE-CGGSLINDQWVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246 AA; 26134 MW; 34E173B18CA2F463 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel. 23, Created)
(TrEMBLrel. 23, Last sequence update)
(TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative 43; Mismatches
                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32.8%;
40.2%;
                                                                                                  32.8%; Scc
36.2%; Pre
ative 50;
                                                                                                                                                                                                                      30165 MW;
                                                                                                                                                                                               4; 257A42B28F40E2C4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 490; Db ...
No. 1.4e-39;
                                                                                                                               Score 490; DB 4;
Fred. No. 1.6e-39;
                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94;
                                                                                                        91;
                                                                                                                                                         Length 275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 246;
                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16;
                                                                                                        42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                           8
```

```
QBCGR AC QBCGR AC QBCGR AC QBCGR DT 01-MA DT 1-MA DT
                                              Ś
        吊
                                                                                                   문
                                                                                                                                                          8
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
Adams M., Mural R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AY152434; AAN78422.1;
SEQUENCE 254 AA; 28042 MW; AA9E38BEBDD01861 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2003
01-MAR-2003
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q8CGR4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=22325484; PubMed=12437987;
Olsson A.Y., Lundwall A.;
"Organization and evolution of the glandular kallikrein locus in Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Euraryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Manmalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biochem. Biophys. Res. Commun. 299:305-311(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLK15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Prostin.
229
                                251 GSAQHPAVYTQICKYMSWINKVIR 274
: | | | | | : : | | : : |
                                                                                                     169 NISIISEASCNKDYPGRVLPTWVCAGVEGGGTDSCEGDSGGPLVCGGALQGIVSWGDVPC
                                                                                                                                                    192 SITILSPKECEVFYPGVVTNNMICAGLD-RGQDPCQSDSGGPLVCDETLQGILSWGVYPC 250
                                                                                                                                                                                                              109 RLFKPARLTAYVRPVALPRRCPLIGEDCVVSGWGLLSDNNPGATGSQKSHVRLPDTLHCA
                                                                                                                                                                                                                                                                   142 KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGW-----GTTAARR--VKYNKGLTCS 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tch 32.5%; Score 486; DB 11; Length 254; al Similarity 40.2%; Pred. No. 3.6e-39; 106; Conservative 38; Mismatches 94; Indels 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                      57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111
                                                                                                                                                                                                                                                                                                                                                                                          83
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                            TAAHCGNXELWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
DITTKPGVYTKVCSYLEWIWENVR 252
                                                                                                                                                                                                                                                                                                                          TAAHCQTRFMRVRLGEHNLRKFDGPEQLRSVSRIIPHPGVB-----ARTHRHDIMLL
                                                                                                                                                                                                                                                                                                                                                                                                                                      LLLAFVLLVSAA--QDGDKVLE----GEECVPHSQPWQVALFERGRENCGAFLISPRWVL 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATESFPHPGFNNS----LPNKOHRNDIMLVKMASPVSITWAVRPLTLSSRCVTAGTSCL 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RTTRSVVHPKXHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQ 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RWLLTAAHC-LKP-WVSLTSPTHVSPDLSSSNYCLSHLSRYIVHLGQHNLQKEEGCEQTR 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SWVLTAAHCGNKPLW-------------ARVGDDHLLLLQG-EQLR 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TrEMBLrel. 23, Created)
(TrEMBLrel. 23, Last sequence update)
(TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ይ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                             108
                                                                                                        228
                                                                                                                                                                                                              168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82
```

Search completed: November 25, 2003, 09:08:42
Job time : 60 secs

```
Database :
                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                           Minimum DB seg length: 0
Maximum DB seg length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                     Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                     Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                      1496
1 MRAPHLHLSAASGARALAKL....AVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                       November 25, 2003, 07:31:39; Search time 17 Seconds (without alignments) 763.492 Million cell updates/sec
                                                                                                                                                                                                                                   127863 segs, 47026705 residues
                                                                                                                                                                                                                                                                                                BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                     US-10-021-368-1
SwissProt_41:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
```

and is	score greater than or equal to the score of the result being printed,	Fred.
der	grea	NO.
Ž.	ter	Ç
δ, O	thar	Lue I
ana	ZO L	Jump
1781	equ	Ġ,
e O	al	H
T.	6	esu
ě	ë	5
oral	SCOR	pard
800	e of	TCCG
e e	the	ν O
istri	resu	cnan
put	11:	Ce
g	bein	00
	ig G	ave
	cint	Þ
	Ġ.	

Result 458.5 459.5 468.5 468.5 467 464.5 458.5 457.5 457.5 Score Query Match Length DB KLIKA HUMAN KLKC HUMAN KLK7 HUMAN KLK8 HUMAN KLK8 HUMAN KLK8 HUMAN KLK8 HUMAN KLK9 HUMAN KLK9 HUMAN KLK9 HUMAN KLK9 HUMAN KLK9 HUMAN KLK6 HUMAN TRYP PIG TRY1 RAT KLK6 HUMAN TRY2 HUMAN TRY2 CHICK TRY3 SALSA TRY3 HUMAN TRY2 SQUAC TRY2 SQUAC TRY2 CANPA TRY1 HUMAN KLK7_RAT TRY1_XENLA TRY1_CHICK ij SUMMARIES Q92876 homo sapien P08426 rattus norv P07478 homo sapien Q90629 gallus gall P35033 salmo salar P35030 homo sapien P00764 squalus aca P70059 xenopus lae P06871 canis famil Ojukq9 homo sapien Oppog3 homo sapien Oppog3 homo sapien Oppog3 homo sapien Opukr3 homo sapien P00766 bos taurus P007146 mus musculu P00766 rattus norv 060259 Q9h2r5 Q61955 P06872 P00761 Q29463 Q9ubx7 043240 Q9ukr0 P00763 rattus norv Q9y337 homo sapien P12788 rattus norv Description P49862 7 homo sapien 3 rattus norv 9 xenopus lae 7 gallus gall homo sapien mus musculu canis famili bos taurus homo sapien homo sapien homo sapien sus scrofa rattus norv

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	R T R R R R R R R R R R R R R R R R R R	222222222 3222222222			
RRP SEE RRP SEE RRP SEE RRP SEE RRP RA ADD R	SEQUI MEDLI MEDLI MEDLI MEDLI MOSS MOSS MOSS MOSS MOSS MOSS MOSS MOS	CONTENT	SSULT O4 O4 O5 O4 O5 O6 O6 O6 O6 O6 O6 O7 O6 O6 O7 O7 O7 O7 O7 O7 O7 O7 O7 O7 O7 O7 O7		6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
SEQUENCE FROM Lamerdin J.B., Barkhart-Schul Phan H., Velas Danganan L., E Andreise T., T Duarte S., Luc Arellano A., S Olsen A.S., Ca "Sequence anal Submitted (OCT 15] SEQUENCE FROM MEDIINE-223882 Strausberg R.L. Klausner R.D.,		SEQUENCE FROM N.A.  SEQUENCE Spithelium;  MEDLINE=96370486; Pu  Liu XL., Wazer D.E  "Identification of a  of which is down-reg  Cancer Res. 56:3371-	_HUMAN STAN 043240; Q99920; Q99 15-DEC-1998 (Rel. 3 15-DEC-1998 (Rel. 3 15-SEP-2003 (Rel. 4 15-SEP-2016 (Rel. 4 15-SEP-2016 (Rel. 6 15-SEP-2017 (Rel. 6 16-SEP-2017 (R		450.50 445.50 445.50 445.50 434.36 434.50 431.50 431.50 431.50 431.50 431.50 431.50 431.50 431.50 431.50 431.50 431.50 431.50
COM N.A.  Shell, McC  Shell, McC  Shell, McC  Shell, McC  Shell  Carrae  (CCT-2019  (CCT-2019  COM N.A.  NAM  See Shell	FROM N.A.  98321170; PubMed  Y., Herbrick J.A.  is E.P.  cario characteriza  cafic 1 gene.",  Biophys. Res. C  FROM N.A.  20510030; PubMed  Lee I. Smith R.  Paeper B., Wang  cing and expressi  located in chrom  71119-130(2000).	OM N.A. helium, 20486; Wazer I tion of down-1 56:337	HIMAN STAND [0; Q99920; Q962 [0-1998 [Rel. 37 [C-1998 [Rel. 37 [C-1998 [Rel. 37 [F-2003 [Rel. 42 krein 10 precur helial cell-spec bor prrSLL OR N Sapiens (Human N Sapiens (Human N Yyota; Metazoa; llia; Eutheria; TaxID=9606;		22222222222222222222222222222222222222
N.A.  MCCready P  MCCready P  To I  Tar K. Gord  Co N. Do L  Tarkheim M. Ch  Tarkheim M. Ch  Tarkheim A.V.;  Ysis of chr  -2000) to th  N.A.  Feingold  Collins F.s	FROM N.A., Scherer S., Herbrick J.A., Scherer S. S. B. P., Schic I. J.A., Scherer S. S. B. P., Scherer S. S. B. P., Scherer S. S. B. P., Scherer S., Scherer S., Scherer S., Scherer S., Scherer S., Wang K., Paeper B., Wang K., Paeper B., Wang K., Paeper B., Wang K., Paeper B., Cheromanalysis located in chromosome 19q137119-130(2000).	OM N.A. helium, 20486, PubMed=876413 Wazer D.E., Watanabe tion of a novel seri down-regulated duri 56:3371-3379(1996).	PO. HIS.		22222222222222222222222222222222222222
Jon L. Jon L. Reg iristen Atti Pe R. Ow D. Comosom The EMB	<pre>d=9647736;, Scherer: ation and m ation and m 247 Commun. 247 d=11054574;, Argonza-) jon analysi mosome 19q1.</pre>	=8764136; atanabe K. al serine el serine ed during (1996).	ated t and EC 3 1).		
kowr Dia Dia ala 1 sen 1 sen 1 x C Thom Noli e 19 L/Ger L/Ger	7736; herer S.W., herer S.W., and mapping n. 247:580-5 r. 247:580-5 gonza-Barret gonza-Barret gonza of t nalysis of t	5 5 7 €	PRT; 276 ; ted) sequence update annotation upda C 3.4.21) (Pro ). ta; Craniata; Ve es; Catarrhini;	ALIGNMENTS	TRY2_CHICK ESTA CANFA TRY2_SALSA TRY1_SALSA TRY1_GADMO TRYX_GADMO
i B., Terry Terry George ico-Ke ., Tro 4."; k/DDBJ	W., Beatty   pping of the pping of the serion.";	., Band V.; protease-like breast cancer	276 AA. update) on update) -} {Protease ata; Vertebr	NTS	
		e gene, the	seri ata; idae;		
wanathan V., M., Stilwagen Brower A., Gax A., Avila J., G., Coefield C., Kronmiller E S., Kobayashi A S., Kobayashi A S., Kobayashi A	ire ( epit McCua	E. In	ne-like 1) ( Euteleostomi		Q90628 P09582 P35032 P35031 P16049 Q91041 P36376 P00755 P00755 P36374 P07647
S. S. Litter	J., Ehelial	press	stomí;		gal can sal sal gad gad gad rat mus rat rat rat
, c w,		ion	(Normal		lus gall is famil mo salar mo salar mo salar sorbu tus morhu tus norv tus nozv tus nozv musculu tus nozulu tus nozulu tus nozv

```
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarathe P.H., Rhabosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarathe P.H., Rhak S.A., McEwan P.J., Malek J.A., Gunarathe P.H., Rhak A., Malak J.A., Gunarathe P.H., Rhak J., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A., Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Butterifield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."; pp. 16899-16903 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AP055461; AAB81602.1; --
EMBL; AP055461; AAC14266.1; --
EMBL; AF243527; AAG33363.1; --
EMBL; AC011473; AAG23256.1; --
EMBL; AC011473; AAG23256.1; --
EMBL; BC002710; AAH02710.1; --
   DISULFID
CARBOHYD
CONFLICT
CONFLICT
                                                                DISULFID
DISULFID
DISULFID
                                                                                                                                            CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
                                                                                                                                                                                                                                       SMART; SM00020; Tryp_SPc; 1.
PROSITE; PS00240; TRYPSIN_DOM; 1.
PROSITE; PS00134; TRYPSIN_SER; FALSE_NEG.
PROSITE; PS00135; TRYPSIN_SER; FALSE_NEG.
                                                                                                                                                                                                                                                                                                                        GO; GO:0005576; C:extracellular; TAS.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
pfam: PF00089: trypsin; 1.
                                                                                                                                                                                                                                                                                                                                                                                MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This
                                                                                                                                                                                                                                                                                                    Pfam; PF00089; tr
PRINTS; PR00722;
                                                                                                                                                                                                                                                                                                                                                                                              MEROPS; S01.246; -.
Genew; HGNC:6358; KLK10.
                                                                                                                             DISULFID
                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=99025848;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Secreted (Probable).
TISSUE SPECIFICITY: EXPRESSED IN BREAST, OVARY
DEVELOPMENTAL STAGE: DOWN-REGULATED DURING BREA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: HAS A TUMOR-SUPPRESSOR ROLE PROSTATE CANCER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INE=99025848; PubMed=9809976;
1 J., Smith K.M., Cowan J.M., Wazer D.E.,
role for NES1 serine protease as a novel
er Res. 58:4782-4786(1998).
                                                                                                                                                                                                                                                                                                                                                                                     602673;
                                                                                                                                                                                                                                                                                                                                                                                                                                   P00763;
                                                                                                                                                                                                                          Serine
     169
201
225
149
                                                                                                                                                                                                                                                                                                                                                                                                                                   10PO.
                                                                                                                                                                                                                                                                                                      trypsin; 1.
2; CHYMOTRYPSIN.
                                                                                                                                                                                                                          protease;
      137
137
162
162
150
250
250
KALLIKEIN 10.

CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
BY SIMILARITY.
A -> S (IN REF. 3 AND
P -> L (IN REF. 3 AND
                                                                                                                                                                                                                        Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         moved. Usage by and for commercial
(See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lee S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NES1
     AND (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BREAST CANCER
                                                                                                                                            78)
78)
78)
                                                                                                                                                                                                                        Anti-oncogene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IN BREAST AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .W., Band V.; suppressor.";
                                                                                                                                          Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
                                   (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                꿈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C_HUMAN STAN

KLKC HUMAN STAN

QSUKRO; QSUKRI;

16-QCT-2001 (Rel. 4

16-QCT-2001 (Rel. 4

16-QCT-2001 (Rel. 4
ŚRQUENCE FROM N.A. (ISOFORM 2).

Lamerdin J.E., McCready P.M., Skowronski E., Viswanathan V.,

Burkhart-Schultz K., Goxdon L., Dias J., Ramirez M., Stilwägen S.,

Phan H., Velasco N., Do L., Regala W., Terry A., Brower A., Garnes

Phan H., Erler A., Christensen M., Georgescu A., Avila J., Liu

Andreise T., Trankheim M., Attix C., Amico-Keller G., Coefield J.,

Duarte S., Lucas S., Bruce R., Thomas P., Quan G., Kronmiller B.,

Arellano A., Sanders C., Ow D., Nolan M., Trong S., Kobayashi A.,

Olsen A.S., Carrano A.V.,

Olsen A.S., Carrano A.V.,

"Sequence analysis of chromosome 19913.4.";
                                                                                                                                                                                                                                                                   Yousef G.M., Magklara A., Scorilas A., "Cloning of new alternatively spliced igene 5 (KLK-L5).";
                                                                                                                                                     Gene
                                                                                                                                                                 Moss P., Paeper
"Sequencing and
cluster located
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                          Gan L., Lee I.,
                                                                                                                                                                                                                     SEQUENCE FROM N.A. (ISOFORM 1)
MEDLINE=20510030; PubMed=11054
                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=20118156; PubMed=10652563;
Yousef G.M., Luo L.-Y., Diamandis E.P.;
"Identification of novel human kallikrein-like genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                              Submitted
                                                                                                                                                                                                                                                                                                                                             19q13.3-q13.4.";
Anticancer Res. 19:2843-2852(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kallikrein 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                      257:119-130(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OR KLKLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     بر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MRAPHIHISAAGGARALAKILPILMAQIMAAEAAILPQNDTRIDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHFK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GILSWGVYPCGSAOHPAVYTOICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RVKYNKGLICSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQURRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                             (NOV-1999) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                               B., Wang K.;
expression analysis
in chromosome 19q13
                                                                                                                                                                                                          Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40, Createu,
40, Last sequence update,
40, Last annotation update)
-- qursor (gC 3.4.21.-) (Kallikrein-like
                                                                                                                                                                                                                     PubMed=11054574;
                                                                                                                                                                                                                                                                                                                                                                                                                  (ISOPORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                          ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                        Argonza-Barrett R.,
                                                                                                                                                                                                                                                                                                                                                                                                                  ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1496; DB 1;
Pred. No. 2.1e-128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82A2507379BAB313 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                               or the serine region.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                         forms
                                                                                                                                                                                                                                                                                                    Diamandis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₹
                                                                                                                                                                                                                                                                                         of the kallikrein-like
                                                                                                                                                                                                          Lei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                       H., McCuaig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                               protease gene
                                                                                                                                                                                                                                                                                                                                                                         ខ្ព
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                         chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                          ٦.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                 S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

```
SOLITIFIER THE TRAINING TO COLOR COL
                                        Ś
                                                                                              뮻
                                                                                                                                         Ş
                                                                                                                                                                                               货
                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:0005576; C:extracellular; NAS.
GO; GO:000508; P:protectlysis and peptidolysis; NAS.
Interpro; IPR001254; Ser protease_Try.
Pfam; PF00089; trypsin; 1.
SMART; SM00020; Tryp_SPc; 1.
PROSITE; PS50240; TRYPSIN_DOM; 1.
PROSITE; PS90134; TRYPSIN_DOM; 1.
PROSITE; PS90134; TRYPSIN_ER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
ACT_SITE
ACT_SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEROPS; S01.020; -.
Genew; HGNC:6360; KLK12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AF135025; AAD26426.2; --
EMBL; AF135025; AAF06065.1; --
EMBL; AF24527; AAG33365.1; --
EMBL; AC011473; AAG23258.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IsoId=Q9UKR0-2; Sequence=VSP_005403;
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         605539;
                                                                                                                                                 141
  172
                                                                                                                                                                                                                                                                                                                                                                                                     118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P00763;
                                                                                                                                                                                                  58
                                                                                                                                                                                                                                                   82
                                                                                                                                                                                                                                                                                                                                                 23 LLMAQLWAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IsoId=Q9UKR0-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                             CEALKAGAALINWWICWGTDEGÖDEGÖSDSGGETACDELTÖGITSMG-AKACGSWÖHBWAK
                                                                                                                                               LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTMARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                               LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDIML 140
CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                 LILCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                 LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18
62
108
200
200
200
140
172
196
163
236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1PPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108
200
161
161
206
206
206
222
248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26733 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                             37.7%;
45.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
BY SIMILARITY.
N-LINKED (GLCNAC. . .) (POTENTIAL).
KYUDMIRMINEN -> NSTLVGLGTSWNFNSCQPF (ii
                                                                                                                                                                                                                                                                                                                                                                                                     29;
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 564; DB 1;
Pred. No. 5.4e-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         soform
                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB473E98F8BAF703 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 005403
                                                                                                                                                                                                                                                                                                                                                                                                                                46-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                  18; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ίin
                                                259
                                                                                                                                                                                               111
                                                                                                                                                                                                                                                                                                   57
```

```
RESULT 3

RICKY HUMB

ID KILKY A

AC P498

DT 01-C

DT 01-C

DT 01-C

DT 01-C

DT 01-C

CC C-1-C

CC That

RA SUM

RESULT 3

R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P49862;
P49862;
01-OCT-1996 (Rel. 34, Cr
01-OCT-1996 (Rel. 34, L
-- exp-2003 (Rel. 42, L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HUMAN
                                                                                                                      BLOCHEM. BLOPHYS. Res. COMMUN. 211:586-589(1995).

BLOCHEM. BLOPHYS. Res. COMMUN. 211:586-589(1995).

FINCTION: MAY CATALYZE THE DEGRADATION OF INTERCELLULAR CONTINUOUS STRUCTURES IN THE CONNIFIED LAYER OF THE SKIN IN THE CONTINUOUS SHEDDING OF CELLS FROM THE SKIN SURFACE. SPECIFIC FOR AMINO ACID RESIDUES WITH AROMATIC SIDE CHAINS IN THE PLOSITION. SCCE CLEAVES INSULIN B. CHAIN AT 6-LEU-1-CYS-7, 16-TYR-1-LEU-17, 25-PHB-1-TYR-26, AND 26-TYR-1-THR-27. COULD PLAY A ROLE IN THE ACTIVATION OF PRECURSORS TO INFLAMMATORY CYTOKINES.

-ITSSUE SPECIFICITY: IT IS ABUNDANTLY EXPRESSED IN THE SKIN AND IS EXPRESSED BY KERATINOCYTES IN THE EPIDERMIS. VERY LOW LEVELS ARE ALSO SEEN IN THE BRAIN AND KIDNEY.

-ISSUELSEN IN THE BRAIN AND KIDNEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHARACTERIZATION.
CHARACTERIZATION.
MEDLINE=95314630; PubMed=7794273;
Skytt A., Stroemgvist M., Egelrud T.;
Skytt A., Stroemgvist M., Egelrud T.;
"Primary substrate specificity of recombinant human stratum corneum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUB=Keratinocytes;
Yousef G.M., Scorilas A., Diamandis E.P.;
Yousef G.M., Scorilas A., Diamandis E.P.;
"Molecular characterization, mapping and tissue expression of the
"Molecular characterization chymotryptic enzyme gene.";
human stratum corneum chymotryptic enzyme gene.";
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Cloning, expression, and characterization of stratum corneum chymotryptic enzyme. A skin-specific human serine proteinase."; J. Biol. Chem. 269:19420-19426(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kallikrein 7 precursor (EC 3.4.21.-) (Stratum corneum chymotryptic
enzyme) (hSCCE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLX.
the European Bioinformatics Institute.
                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mice; a model for chronic ithchy dermatitis.";
Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hansson L., Backman A., Ny A., Edlund Wallbrandt P., Egelrud T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Sequencing and expression analysis of the secluster located in chromosome 19q13 region.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Moss P., Paeper B., Wang K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gan L., Lee I., Smith R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hansson L., Stroemqvist M., Egelrud T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KLK7 OR PRSS6 OR SCCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Bpidermal overexpression of stratum corneum chymotryptic enzyme in mice; a model for chronic ithchy dermatitis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene 257:119-130(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=20510030; PubMed=11054574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=94308225; PubMed=8034709;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A., AND SEQUENCE OF 23-53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260 TQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYICKYVDWIRMIMRNN 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Rel. 34, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Argonza-Barrett R., Lei H., McCuaig J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baeckman A., Wallbrandt P., Carlstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             253 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
   There are no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Edholm E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                serine protease gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tornell
   restrictions on
```

modified and this st

(See http://www.isb-sib.

as lusage

e content

and

is for:

in no way r commercial

```
RESULT 4
KLK8_HUMA
ID KLK8
AC 0602
DT 15-J
DT 15-J
DT 28-F
DE Neur
DE prot
                                                                                                                                                                                   Ś
                                                                                                                                         Ś
                                                                                                                                                                  밁
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                        Ş
                                                                                                                           밁
                                                                                                                                                                                                                                                                                              몽
                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; Froo722; CHYMOIKIFUAL...

PRINTS; PROO722; TRYP SPC; 1.

SMART; SW00020; TRYPSIN DOM; 1.

PROSITE; PS50240; TRYPSIN HIS; 1.

PROSITE; PS00134; TRYPSIN SER; 1.
KLK8 HUMAN STANDAKU;

060259; Q9HCB3; Q9UIL9; Q9UQ47;

15-UUL-1999 (Rel. 38, Created)

15-UUL-1999 (Rel. 38, Last sequence update)

28-FEB-2003 (Rel. 41, Last annotation update)

Neuropsin precursor (EC 3.4.21.-) (NP) (Kallikrein i Neuropsin precursor)
                                                                                 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                             PROPEP
CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities
or send a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001314; Chymotrypsin,
InterPro; IPR001254; Ser protease_Try.
Pfam; PF00089; trypsin; 1.
PRINTS; PR00722; CHYMOTRYPSIN.
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEROPS; S01.300; -.
Genew; HGNC:6368; KLK7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0008544; P:epidermal differentiation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR; A53968; A53968.
HSSP; P00763; 1DPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF243527; EMBL; AF332583;
                                                                                                                                              253
                                                                                                                                                                   169
                                                                                                                                                                                      194
                                                                                                                                                                                                            109
                                                                                                                                                                                                                                134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604438;
                                                                                                                                                                                                                                                                                                                                       108;
                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                       74
                                                                                                                                                                                                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L33404; AAC37551.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AF166330;
                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             non-profit institutions as long and this statement is not removed, s requires a license agreement (See lan email to license@isb-sib.ch).
                                                                                                                                                                                   TILSPKECEVEYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                       HVNDLMLVKLNSQARLSSMVKKVRLÞSRCEPÞGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                          DEHDIMILKIARPVVPGPRVRALQIPYRÇAQPGDQÇQVAGWGTTAARRVKYNKGLTÇSSI 193
                                                                                                                                                                                                                                                  VLVNERWVLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY
                                                                                                                                                                                                                                                                VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT
                                                                                                                                                                                                                                                                                                             ARALAKLIPILMAQIMAABAALIPONDTRIDPBAYGAPCARGSQPWQVSIFNGISFHCAG
                                                                                                                         PNDPGVYTOVCKFTKWINDTMKKH
                                                                                                                                          AQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                               KLIŚPQDĊTKVYKDLLEŃSMLCAGIPDSKKNACNGDŚGGPLVCRGTLOGLVŚWGTFPCGQ
                                                                                                                                                                                                                                                                                          ĀRSLLLPLQILLLSLALETĀGEEAĢGDKIID----GĀPCĀRGSHÞWQVALLSGNQLHCGĠ
                                                                                                                                                                                                                                                                                                                                                                                144
176
201
246
253
                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    1
23
30
70
112
205
55
                                                                                                                                                                                                                                                                                                                                                                                 Ž,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; AAD49718.1; -.
; AAG33360.1; -.
; AAK69624.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protease; Zymogen;
                                                                                                                                                                                                                                                                                                                                                                                           27525 MW;
                                                                                                                                                                                                                                                                                                                                                   40.98;
                                                                                                                                                                                                                                                                                                                                                            36.7%;
                                                                                                                                                                                                                                                                                                                                       45;
                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTIVATION PEPTIDE.
KALLIREIN 7.
CHARGE RELAY SYSTEM
CHARGE RELAY SYSTEM
CHARGE RELAY SYSTEM
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILA
BY SIMILAL
BY SIMILAL
BY SIMILAL
                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY.
CHINKED (GLONAC...
2D68B6B15A76A668 (
                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                       252
                                                                                                                                              276
                                                                                                                                                                                                                                                                                                                                                549:
No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                      97;
                                                                                                                                                                                                                                                                                                                                                                               CRC64;
                                                                                                                                                                                                                                                                                                                                                          Length 253;
                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78
78
78
78
     expressed
               8) (Ovasin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                                TOTE----STOT
                                                                                                                                                                                                                                                                                                                                     14;
     gene-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .ch/announce/
                (Serine
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                  108
                                                                                                                                                               228
                                                                                                                                                                                   252
                                                                                                                                                                                                       168
                                                                                                                                                                                                                                                                                           57
                                                                                                                                                                                                                                                                                                                                     4
```

```
SEQUENCE OF 1-164 FROM N.A. (ISOFORM 1).

Lamerdin J.E., McCready P.M., Skowronski E., Viswanathan V.,

Burkhart-Schultz K., Gordon L., Dias J., Ramirez M., Stilwagen S.,

Burhant H., Velasco N., Do L., Regala W., Terry A., Brower A., Garnes

Danganan L., Erler A., Christensen M., Georgescu A., Avila J., Liu

Andreise T., Trankheim M., Attix C., Amico-Keller G., Coefield J.,

Duarte S., Lucas S., Bruce R., Thomas P., Quan G., Kronmiller B.,

Arellano A., Sanders C., Ow D., Nolan M., Trong S., Kobayashi A.,

Aleguence analysis of chromosome 19q13.4.";

Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.

-- FUNCTION: SUGGESTED TO BE INVOLVED IN KINDLING EPILEPTOGENESIS.
                                                                                                                                                                                                                                 HIPPOCAMPAL PLASTICITY.

-!- CATALTTIC ACTIVITY: Preferential cleavage:
-!- SUBCELLULAR LOCATION: Secreted.
-!- ALTERNATIVE PRODUCTS:
-!- ALTERNATIVE PRODUCTS:
-!- Event=Alternative splicing; Named isoforms-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Moss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 1).

Gan L., Gelinas R., Gown A.M., Moss P., Smith R., Wang K.;

"Molecular cloning and characterization of a novel serine protovasin, a potential molecular marker for ovarian carcinomas.";

Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
               ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mitsui S., Tsuruoka N., Yamashiro K., Nakazato H., Yamaguchi N.; "A novel form of human neuropsin, a brain-related serine protease, generated by alternative splicing and is expressed preferentially human adult brain.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Hippocampus;
MEDLINE=98372070; PubMed=9714609;
Yoshida S., Taniguchi M., Hirata A.,
"Sequence analysis and expression of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Sequencing and expression analysis cluster located in chromosome 19q13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gan L., Lee I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. (ISOFORM 1).
MEDIINE=20510030; Pubmed=11054574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        serine protease overexpressed & Cancer Res. 59:4435-4439(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  O'Brien T.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Cloning of tumor-associated differentially expressed serine protease overexpressed by ovarian carcinoma.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Underwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=99413504;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Ovary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99203457;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORMS 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gene 213:9-16(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein).
KLK8 OR PRSS19 OR TADG14 OR NRPN.
ISOId-060259-2; Sequence=VSP_005401;
TISSUE SPECIFICITY: ISOFORM 1 IS PREDOMINANTLY EXPRESSED IN THE PANCREAS WHILE ISOFORM 2 IS EXPRESSED IN PETAL RAID HIPPOCAMPUS. BOTH FORMS ARE ALSO FOUND IN RETALI RAID PLACENTA. NOT DETECTED IN KIDNEY, SPLEEN, LIVER AND LUNG. SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                               Name=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257:119-130(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                    IsoId=060259-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Paeper B., Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tanimoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260:627-634(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=10485494;
animoto H., Wang Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed=10102990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ISOFORM
                                                                                                                                                                               Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R., Argonza-Barrett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ļ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human
                                                                                                                                                                                                                                   isoforms=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shiosaka S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shigemasa K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neuropsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lei
                                                                                                                                                                                                                                                                                                     Arg-,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ħ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Parmley T
                                                                                                                                                                                                                                                                                                        Lys-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McCuaig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene-14, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ín
                                                                                                                                                                                                                                                                                                                                                            AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
```

SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -

뭉

245 ICRYLDWIKKIIGS 258

```
뭕
                                                                                                             Ş
                                                                                                                                                       8
                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEROPS; S01.244; -.
Genew; HGNC;6369; KLK8.
MIM; 605644; -.
GO; GO:0007399; P:neurogenesis; ThS.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACT SITE
ACT SITE
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROPER
CHAIN
ACT_SIT
ACT_SIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam, PF00089; trypsin; T.

PRINTS; PR00722; CHYMOTRYPSIN.

SMART; SM00020; Tryp SPC; 1.

PROSITE; PS50240; TRYPSIN DOM; 1.

PROSITE; PS00134; TRYPSIN HIS; 1.

PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           embl;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hydrolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L; AB009849; BAA28673.1; AB012761; BAA28676.1; AB012761; BAA88684.1; AB010796; BAA88684.1; AB008927; BAA82666.1; AF055982; AAD56050.1; AF055972; AAD25979.1; AF045277; AAG23361.1; AC011473; AAG23254.1; AC011473; AAG23254.1; AG011473; AAG23254.1; AG011473; AAG23254.1; AG011473; AAG23254.1; AG011473; AAG23254.1; AAG23254.1; AG011473; AAG232544.1; AG011473; AAG232444.1; AG011474; AG01147
                                                                                                                                                          125
                          262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q61955;
                                                                                                                                                                                                                                               70
                                                                                                                                                                                                                                                                                       83
                                                                                                                                                                                                                                                                                                                                    16
                                                                                                                                                                                                                                                                                                                                                                             23 LIMAQIWAAEAALLEQNDTRIDEEAYGAECARGSQEWQVSLENGLSEHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                              EVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQ 261
                                                                                                                                                       QLRDQASLGSKVKPISLADHCTQPGQKCTVSGWGTVTSPRENFPDTLNCAEVKIFPQKKC
                                                                                                                                                                                                                                                                                       TAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                       ICKYMSWINKVIRS 275
                                                                    EDAYPGQITDGMVCAGSSKGADTCQGDSGGPLVCDGALQGITSWGSDPCGRSDKPGVYTN
                                                                                                                                                                                                  KLAKPVVPGFRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                             TAAHCKKPKYTVRLGDHSLONKDGPEQEIPVVQSIPHPCYNSSD-----VEDHNHDLMLL
                                                                                                                                                                                                                                                                                                                                  LLLGGAWAGHSR--AQEDKVLG----GHECQPHSQPWQAALFQGQQLLCGGVLVGGNWVL 69
Serine protease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               260 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              splicing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
212
39
58
145
145
184
208
110
                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INPM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
212
173
74
246
218
198
198
133
110
                                                                                                                                                                                                                                                                                                                                                                                                                                             36.6%;
43.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28048 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                          27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.

BY SIMILARITY.

NEUROPSIN.

CHARGE RELAY SYSTEM

CHARGE RELAY SYSTEM

CHARGE RELAY SYSTEM

BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycoprotein; Zymogen; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 547; DB 1; Length 260; Pred. No. 2e-42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-LINKED (GLCNAC. ) (POTENTIAL)

A -> AGCSLDLLTKLYAENLPCVHLNPQWPSQPSHCPRG
WRSUPLPPAA (in isoform 2)

/FTIG=VSP_005401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FTId=VSP_005401.
EF439E5B8C83E660 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                          104; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BY
(BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                          12;
                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                             124
                                                                                                                                                     184
                                                                                                                                                                                                                                                                                                                                                                               82
                                                                    244
                                                                                                                                                                                                  201
```

```
KLKF_HU
          REPRESENTATION OF THE PROPERTY OF THE PROPERTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KLKF HUMAN STANDARD;

Q9H2R5; Q15358; Q9H2R3; Q9H2R4; Q9H2R6; Q9HBG9;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Kallikrein 15 precursor (EC 3,4.21.-) (ACO protease).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "A novel serine proteinase-like sequence from human brain.";
Biothim. Biophys. Acta 1218:225-228(1994).
-!- FUNCTION: Protease whose physiological substrate is not yet known.
-!- SUBCELULAR LOCATION. Secreted (Probable).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMAN
MEROPS; S01.081; -.
G0; G0:0005576; C:extracellular; NAS.
G0; G0:0006508; P:pxoteolysis and peptidolysis; NAS
                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Brain;
MEDLINE=94289486; PubMed=8018728;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gan L., Lee I., Smith R., Argonza-Barrett R., Lei H., McCuaig
Moss P., Paeper B., Wang K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yousef G.M., Scorilas A., Jung K., Ashworth L.K., "Molecular cloning of the human kallikrein 15 gen regulation in prostate cancer.";
J. Biol. Chem. 276:53-61(2001).
                                                                                                                                                                                                                                                                                       EMBL; AF242195; AAG09469.1; -.
                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene 257:119-130(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=20510030; PubMed=11054574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=11010966;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dihanich M.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY PARTIAL SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Sequencing and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., ALTERNATIVE SPLICING, AND TISSUE SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ISOId-Q9H2R5-4; Sequence=VSP_005404;
TISSUE SPECIFICITY: Highest expression in the thyroid gland. Also expressed in the prostate, salivary, and adrenal glands and in the colon testis and kidney.

SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                          L; AF242195; AAG09470.1; -, L; AF242195; AAG09471.1; -, L; AF242195; AAG09472.1; -, L; AF243527; AAG33354.1; -, X75363; CAA53145.1; ALT_SEQ. P; P00763; 1DPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Event=Alternative splicing; Named isoforms=4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IsoId=Q9H2R5-3; Sequence=VSP_005406, VSP_005407;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IsoId=Q9H2R5-2; Sequence=VSP_005405;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IsoId=Q9H2R5-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Spiess M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression analysis of the serine in chromosome 19q13 region.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene (KLK15). Up-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in the
```

```
NRPN MOUSE
ID NRPN MAC
AC Q61955
DT 15-JUL
DT 15-JUL
DT 28-FEB
DE Neurop
GN KLKR 00
OS MUS MU
OC EUKARY
OC MARMALI
OX NCEL T
RN [1] NR
RC STRAIN
RX MEDLIN
RX MEDLIN
RA Ito J.
RT "Expre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OR REPORTED TO THE PROPERTY OF THE PROPERTY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Sim
Matches 107;
SEQUENCE FROM N.A.
STRAIN-BALB/G; TISSUE-Hippocampus;
MEDLINE-95348817; PubMed=7623137;
Chen Z.-L., Yoshida S., Kato K., Momota Y., Suzuki J.,
Ito J., Nishino H., Aimoto S., Kiyama H., Shiosaka S.;
"Expression and activity-dependent changes of a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro;
InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam, PF00089; trypsin; I.

PRINTS; PR00722; CHYMOTRYPSIN.

PROSITE; PS00240; TRYPSIN_DOM; 1.

PROSITE; PS00134; TRYPSIN_HIS; 1.

PROSITE; PS00135; TRYPSIN_SER; FALSE_NEG.
                                                                                                                                                                                                                                                       15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Neuropsin precursor (EC 3.4.21.-) (NP) (Kalii
KLK8 OR PRSS19 OR NRPN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hydrolase; Serine pro
Alternative splicing
                                                                                                                                                                                        Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                      Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                            Q619<del>5</del>5;
                                                                                                                                                                                                                                                                                                                                                                                               NRPN_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               تر)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCDNTTKPGVYTKVCHYLEWIRETMKRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLRLVQPARLNPQVRPAVLPTRCPHPGEACVVSGWGLVSHNEPGTAGSPRSQVSLPDTLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LLKLARFVVPGPRVRALQLFYRCAQFGDQCQVAGWGTTA----ARRVKYNKGLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VISAAHCOSREMRVRIGEHNURKRDGPEOURTTSRVIPHPRYE-----ARSHRNDIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VLTAAHCGNKPLWARVGDDHLLLLOG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CANISIISDTSCDKSYPGREINTMVCAGAEGRGAESCEGDSGGFLVCGGILQGIVSWGDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CSSITILSPKECEVFYPGVVTNNMICAGLD-RGQDPCQSDSGGPLVCDETLQGILSWGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLLTLSFLLASTAA--ODGDKLLE----GDECAPHSOPWOVALYERGRENCGASLISPHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IPR001314; Chymotrypsin.
IPR001254; Ser_protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Serine protease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             À
                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16
256
62
106
209
171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160 1
28087 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        missing (in isoform 2).
/FTId=VSP_005405.
V -> C ''=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glycoprotein:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 520; DB 1;
Pred. No. 5.4e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Missing (in isoform 3).
/FTId=VSP_005407.
SHNEPGTAGSPRSQ -> PLSSP (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /PTId=VSP_005404. Wissing (in isoform 4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /FTId=VSP_005405.
V -> G (in isofor
/FTId=VSP_005406.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KALLIKREIN
                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BSEBF8D6022786B5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                 260 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC. .
                                                                                                                                                                                                                                                                                    (Kallikrein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEPTIDE (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1: Length 256;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Signal:
                             , Suzuki J.,
Shiosaka S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zymogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
                                                       Tanaka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
```

```
CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shiosaka S., Hakoshima T.;
"Crystal structure of neuropsin, a hippocampal protease involved in kindling epileptogenesis.";
J. Biol. Chem. 274:4220-4224(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Hippocampus;
MEDLINE=99134351; PubMed=9933620;
Kishi T., Kato M., Shimizu T., Ka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shimizu C., Yoshida S., Shibata M., Kato K., Momota Y
Shiosaka T., Midorikawa R., Kamachi T., Kawabe A., Sh
"Characterization of recombinant and brain neuropsin,
plasticity-related serine protease";
J. Biol. Chem. 273:11189-11196(1998).
                                                                                                                                                       PRINTS; PR00722; CHYMOTRYPSIN.
SMART; SM00020; TRYP SPC; 1.
PROSITE; PS50240; TRYPSIN DOM;
PROSITE; PS00134; TRYPSIN HIS;
PROSITE; PS00135; TRYPSIN_SER;
                                                                                                                                                                                                                                                                                                                                EMBL; D30785; BAA06451.1;
EMBL; AB032202; BAA92435.
PIR; I56559; I56559.
                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Biol. Chem. 274:4220-4224(1999).
-!- FUNCTION: SUGGESTED TO BE INVOLVED IN KINDLING EPILEPTOGENESIS AND HIPPOCRAMPAL PLASTICITY. HAS A STRONG PROTEOLYTIC ACTIVITY AGAINST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF N-TERMINUS, AND CHARACTERIZATION STRAIN=BALB/c; TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protease gene
J. Neurosci.
                                                                                                               SIGNAL
                                                                                                                                                                                                                                     InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
Pfam; PF00089; trypsin; 1.
                                                                                                                                                                                                                                                                                  MEROPS; S01.244; -.
MGD; MGI:892018; Klk8
                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce, or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 33-257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98225202; PubMed=9556608;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Cloning and assignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                            PROPEP
                                                                                                                                          Hydrolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yoshida S.,
                                                                                                                          D-structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Neurosci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MASS SPECTROMETRY: MM=26613; MSTHOD=MALDI; RANGE=29-260.
MASS SPECTROMETRY: MM=26229; MSTHOD=MALDI; RANGE=33-260.
SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: Secreted.
TISSUB SPECIFICITY: EXPRESSED SPECIFICALLY IN THE LIMBIC MOUSE BRAIN AND IS LOCALIZED AT HIGHEST CONCENTRATION IN NEURONS OF THE HIPPOCAMPAL CAL 3 SUBFIELDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATALYTIC ACTIVITY: Preferential cleavage: Arg-, Lys-. ENZYMB REGULATION: STRONGLY INHIBITED BY DIISOPROPYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FIBRONECTIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FLUOROPHOSPHATE, LEUPEPTIN AND (4-AMIDINOPHENYL) METHANESULFONYL
                                                                                                                                                                                                                                                                                                                  1NPM; 23-MAR-99.
                                                                                                                                                                                                                                                                                                     S01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hirata A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                e in the hippocampus.";
15:5088-5097(1995).
                                                                                                                                                                                                                                                                                                                                                BAA92435.1;
                                                                                                                                          protease;
   28
32
260
73
120
212
173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shimizu T., Kato K., Matsumoto K., Yoshida S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inoue N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of mouse neuropsin gene,
                                                                                                                                          Glycoprotein;
                                NEUROPSIN.
CHARGE RELAY :
CHARGE RELAY :
CHARGE RELAY :
                                                                                                             POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shiosaka S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kato K., Momota Y., Matsumoto
                                SYSTEM
                                                                                                                                          Zymogen; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prss19 to
                                78)
78)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shiosaka
                                C SIMILARITY).
C SIMILARITY).
C SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PYRAMIDAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
```

```
₽
                                    8
                                                     용
                                                                   8
                                                                                     밁
                                                                                                 8
                                                                                                                   В
                                                                                                                                 8
                                                                                                                                                  밁
                                                                                                                                                                Ś
                                                                                                                                                                                                                STTTTTTTTTTTTTTTTT
                                                                                                                                                                                                                                                                                                                                            44444444444444444444444444
RESULT 7
                                                                                                                                                                                Query Match
Best Local S
Matches 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                          STRAND
STRAND
                                                                                                                                                                                                                                                                                                                                                                                         TURN
                                                                                                                                                                                                                                                                                                                                                                                                         TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAND
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TURN
                                                                                                                                                                                                                        STRAND
HELIX
                                                                                                                                                                                                                                        TURN
STRAND
                                                                                                                                                                                                                                                              STRAND
TURN
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                  TURN
                                                                                                                                                                                                                                                                                                                                                                                                                        STRAND
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAND
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TURN
                                                                                                                                                                                                                                                                                      TURN
                                                                                                                                                                                                                                                                                                              TURN
                                                                                                                                                                                                                                                                                                                            TURN
                                                                                                                                                                                                                                                                                                                                    TURN
                                                                                                                                                                                                                                                                                                                                                                          TURN
                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                     STRAND
                                                                                                                                                                                                                                                                                                                                                                                  STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                  STRAND
                       242
                                                      182
                                                                     199
                                                                                    122
                                                                                                   139 MILKLARPVVPGFRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSP 198
                                                                                                                   67
                                                                                                                                  80
                                                                                                                                                  13
                                                                                                                                                                                 106;
                                                                                                                                                                 20 LLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQS 79
                                                                                                                                                                                         Similarity
                                                      NKCERAYPGKITEGMVCAGSSNGADTCQGDSGGPLVCDGMLQGITSWGSDPCGKPEKPGV
                                                                                                                  WVLTAAHCKKOKYSVRLGDHSLOSRDQPEQEIQVAQSIQHPCYN-NSNP----EDHSHDI 121
                                                                                                                                                  ILLLLEMGAWA -- GLTWAQGSKILE ---- GRECIPHSQPWQAALFQGERLICGGVLVGDR 66
                       YTKICKYTTWIKKTM 256
                                     YTQICKYMSWINKVI 273
                                                                     KECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAV 258
                                                                                    MLIRLQNSANLGDKVKPVQLANLCPKVGQKCIISGWGTVTSPQENFPNTLNCAEVKIYSQ 181
                                                                                                                                 WVLTAAHCGNKPLWARVGDDHLLLLL-QGEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDL 138
                                                                                                                                                                                                                260 AA;
                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            145
152
184
208
110
                                                                                                                                                                                                                                                                                                                                                                                                                 96
100
107
                                                                                                                                                                                                                28523 MW;
                                                                                                                                                                                         34.3%;
                                                                                                                                                                                32;
                                                                                                                                                                                Score 513; DB 1; L
Pred. No. 2.4e-39;
2; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                BE5F6F6BE37CD60E CRC64;
                                                                                                                                                                                                Length 260;
                                                                                                                                                                                  Indels
                                                                                                                                                                                 12;
                                                                                                                                                                                Gaps
                                                      241
                                                                                                                                                                                ū
```

```
밁
                          Ś
                                                        片
                                                                                 Ś
                                                                                                               밁
                                                                                                                                          8
                                                                                                                                                                        Matches
                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; Pr00089; trypsin; T.
SMART; SM00020; Tryp_SPc; I.
PROSITE; PS50240; TRYPSIN_DOM; 1.
PROSITE; PS00134; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
Hydrolase; Serine protease; Digest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRY2 (
                                                                                                                                                                                                                                                                                                                                               CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
                                                                                                                                                                                                                                             DISULFID
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Trypsin, anionic precursor (EC 3.4.21.4). Canis familiaris (Dog). Bukarvnts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pinsky S.D., Laforge K.S., Scheele G.; "Differential regulation of trypsinogen mRNA translation: full-length mRNA sequences encoding two oppositely charged trypsinogen isoenzymes in the dog pancreas."; Mol. Cell. Biol. 5:2669-2676 (1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JAN-1988
01-JAN-1988
                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M11589; AAA30899.1; -.
PIR; A26273; TRDG.
HSSP; P00763; 1DPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -i- CATALYTIC ACTIVITY: Preferential cleavage: Arg-|-Xaa, Lys-|-Xaa
-i- SUBCELLULAR LOCATION: Extracellular.
-i- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                    Multigene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEROPS; S01.258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=86284628; PubMed=3841794;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                          PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
112 KLSSPAVLNARVATISLPRACAAPGTQCLISGWGNTLSSGTNYPELLQCLDAPILTQAQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CANFA
                          142 KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC 201
                                                                                                                                                                        107;
                                                       60 SAAHCYKSRIQVRLGEYNIDVLEGNEQFINSAKVIRHPNYNSW---IL----DNDIMLI
                                                                                  83 TAAHCGNKPLWARVGDDHLLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                          23 LIMAQIMAABAALIPQNDTRIDPBAYGAPCARGSQPWQVSIFNGLSFHCAGVLVDQSWVL
                                                                                                               5 LILAFLGAAVAT--PTDDD--DKIVGGYTCEENSVPYQVSLNAGYHF-CGGSLISDQWVV 59
                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IPR001254; Ser_protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                    family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Rel. 06, Created)
(Rel. 06, Last sequence update)
(Rel. 41, Last annotation updat
                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                         16
24
63
107
200
200
30
48
132
132
171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                             15
247
247
200
107
206
185
206
194
                                                                                                                                                                                     33.8%; Score 506; DB 1;
41.8%; Pred. No. 9.7e-39;
                                                                                                                                                                                                                            ww;
                                                                                                                                                                                                                                       TRYPSIN ANIONIC.
CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
BY SIMILARITY.
                                                                                                                                                                     41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Digestion; Pancreas; Zymogen; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                       ACTIVATION PEPTIDE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                               374E9D31D6DB8EAF
                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       update)
                                                                                                                                                                                                 Length 247;
                                                                                                                                                                                                                               CRC64;
                                                                                                                                                                       Indels
                                                                                                                                                                       16;
                                                                                                                                                                       Gaps
 171
                                                       111
                                                                                                                                                                       8
```

22

```
TA A CONSTRUCTION OF THE PROPERTY OF THE PROPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
TRY2_BO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
           Matches
                            Query Match
Best Local
                                                                                                             DISULFID
DISULFID
SITE
                                                                                                                                                                         DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                          PROPEP
CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
DISULFID
                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IRR001254; Ser_protease_Try.
Pfam; PP00089; trypsin; I.
SMART; SM00020; Tryp_Spc; I.
PROSITE; PS50240; TRYPSIN_DOM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X54703; CAA38513.1; -. PIR; S13813; S13813.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEROPS; SO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P00763; 1DPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    le Huerou I., Wicker C., Guilloteau P., Toullec R., Puigser "Isolation and nucleotide sequence of cDMA clone for bowine pancreatic anionic trypsinogen. Structural identity within trypsin family.";
Eur. J. Blochem. 193:767-773 (1990)
Eur. CATALYTIC ACTIVITY; Preferential cleavage: Arg-|-Xaa, L-1- SUBCELLUIAR LOCATION: Extracellular.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Trypsin, anionic precursor (EC 3.4.21.4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-Holstein-Friesian; TISSUE-Pancreas; MEDLINE-91065383; PubMed-1701147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     029463;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
           105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202
                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                PS50240;
PS00134;
                                                                                                                                                                                                                                                                                                                                                                                                              PS00135;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KVCNFVDWIQSTIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QICKYMSWINKVIRSN
                                                                                                                                 16
24
63
107
200
200
200
132
132
132
132
133
        Conservative
                                                                                         A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                          TRYPSIN_HIS; 1.
                                                                                                                                                                                                                                                                                                                                                                                          protease;
                                                                                                                                   23
247
63
107
200
160
160
233
206
233
206
                                                                                           26289
                          33.8%;
                                                                                           ¥.
      42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          276
                                                                           BY SIMILARITY.
Score 505.5; DB 1;
Pred. No. 1.1e-38;
                                                                                                                                                                                                                                                                                                                                                                      Digestion; Pancreas; Zymogen; POTENTIAL.
                                                                                                                                                                                                                                                           TRYPSIN, ANION
CHARGE RELAY OF
CHARGE RELAY OF
CHARGE RELAY OF
                                                                                                                                                                                                                                                                                                                                            ACTIVATION PEPTIDE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247
                                                                                                                                                                                                                                                                                                                              ANIONIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Toullec R., Puigserver
                                                                                                                                                                                                                                                           C SYSTEM.
C SYSTEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arg-|-Xaa, Lys-|-Xaa
                                          Length
    Indels
                                            247;
                                                                                                                                                                                                                                                                                                                                                                                      Signal.
  15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      260
9
```

```
PARTE REPORTED FOR THE PROPERTY OF THE PROPERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
KLKB_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
SEQUENCE FROM N.A. (ISOFORM 1).
Lamerdin J.E., McCready P.M., Skowronski E., Visw Burkhart-Schultz K., Gordon L., Dias J., Ramirez Phan H., Velasco N., Do L., Regala W., Terry A., Danganan L., Erler A., Christensen M., Georgescu
                                                                                                                                                                                            MEDLINE=20510030; PubMed=11054574;
Gan L., Lee I., Smith R., Argonza-
Moss P., Paeper B., Wang K.;
"Sequencing and expression analysi.
cluster located in chromosome 19q1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Hippocampus, and Prostate;

MEDLINE-20199229; PubMed=10872828;

Mitsui S., Yamada T., Okui A., Kominami K., Uemura H., Yar

"A novel isoform of a kallikrein-like protease, TLSP/hippo

(PRSS20), is expressed in the human brain and prostate.";

Biochem. Biophys. Res. Commun. 272:205-211(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KLKB HUMAN STANDARD; PRT; 250 AA.
QSUBX7; Q75837; Q9NS65;
16-QCT-2001 (Rel. 40, Created)
16-QCT-2001 (Rel. 40, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Kallikrein 11 precursor (EC 3.4.21.-) (Hippostasin) (Trypsin-like
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                       "Genomic organization, mapping, tissue expression, and hor regulation of trypsin-like serine protease (TLSP PRSS20), member of the human kallikrein gene family."; Genomics 63:88-96(2000)
                                                                                                                                                                      Gene 257:119-130(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM 1). MEDLINE=20130117; PubMed=10662548;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yoshida S., Taniguchi M., Suemoto T., Oka T., "CDNA cloning and expression of a novel serin Biochim. Biophys. Acta 1399:225-228(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yousef G.M., Scorilas A., Diamandis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. (ISOFORMS 1 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=98438738; PubMed=9765601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rissue=Hippocampus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KLK11 OR PRSS20 OR TLSP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LKLARPVVPGPRVRALQLPXRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TKVCNYVDWIQETIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CEVFYPGVVINNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IKLSTPAVINARVSTLLLPSACASAGTECLISGWGNTLSSGVNYPDLLQCLVAPLLSHAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PLLMAQLMAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CEASYPGQITNNMICAGFLEGGKDSCQGDSGGPVACNGQLQGIVSWG-YGCAQKGKPGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSAAHCYQYHIQVRLGEYNIDVLEGGEQFIDASKIIRHPKYSSW---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PLLILAFVGAAVAFPSDDDDKI----VGGYTCAENSVPYQVSLNAGYHF-CGGSLINDQWV
                                                                                                                                                                                      expression analysis of the serine in chromosome 19q13 region.";
                                                                                                                                                                                                                                                                                                                            (ISOFORM 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISOFORM 1).
                                                                                                                                                                                                                                                                        Argonza-Barrett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata;
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E. p.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      serine
                                                                                                                                                                                                                                                                     R., Lei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Uemura H., Yamaguchi
ase, TLSP/hippostasin,
                                                                                 Viswanathan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              He X.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protease,
     Brower A., Ga
A., Avila J.,
                                                         M., Stilwagen S.,
                                                                                                                                                                                                                                                                  Ξ
                                                                                                                                                                                                                 protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                  McCuaig
                                                                                                                                                                                                                                                                                                                                                                                                                                                    hormonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yamaguchi N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shiosaka S.;
                                                                                                                                                                                                                                                                                                                                                                                                                              ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIIDNDILL
                                                                                                                                                                                                               gene
                           Garnes
          Liu
     s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200
```

```
RA Strausberg R.D., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Politich M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Boutfard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Blakesley R.W., Touchman J.W., Schmutz J., Myers R.M.,
RA Whiting M., Sachein J.E., Jones S.J.M., Warra M.A.,
"Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.",

Proc. Natl. Acad. Sci. U.S.A. 99:1699-16903 (2002).

CC B2-PHE-ARG-4-METHYLCOMMARYL-7-AMIDE, A KALLIKREIN SUBSTRATE, AND
WEAKLY CLEAVES OTHER SUBSTRATES FOR KALLIKREIN AND TRYPSIN.
              Interpro; IPR001314; Chymotrypsin.
Interpro; IPR001254; Ser_protease_Try.
Interpro; IPR001254; Ser_protease_Try.
Interpro; IPR001254; Ser_protease_Try.
Interpro; IPR00125; CHYMOTRYPSIN.
SMART; SM00020; Tryp_SPC; 1.
SMART; SM00020; Tryp_SPC; 1.
SMART; SM00020; Tryp_SPC; 1.
PROSITE; PS00134; TRYPSIN_HIS; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
Hydrolase; Serine protease; Glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Andreise T., Trankhei
Duarte S., Lucas S.,
Arellano A., Sanders
Olsen A.S., Carrano A
                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AB012917;
EMBL; AB013730;
EMBL; AB041036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its the Dy non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1SOId=Q9UBX7-2; Sequence=VSP 005402;
-i- TISSUE SPECIFICITY: EXPRESSED IN BRAIN, SKIN AND PROSTATE. ISOFORM
1 IS EXPRESSED PREFERENTIALLY IN BRAIN; ISOFORM 2 IN PROSTATE.
-i- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Sequence analysis of chromosome 19q13.4.";
Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
Alternative
                                                                                                                                                                                                                                                            Genew;
                                                                                                                                                                                                                                                                               MEROPS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                   604434;
                                                                                                                                                                                                                                                                                                        P00763;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IsoId=Q9UBX7-1;
                                                                                                                                                                                                                                                         HGNC:6359; KLK11.
                                                                                                                                                                                                                                                                             301.257; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Trankheim M., Attix C., Amico-Keller G., Coefield J., ucas S., Bruce R., Thomas P., Quan G., Kronmiller B., Sanders C., Ow D., Nolan M., Trong S., Kobayashi A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence=Displayed;
                        Glycoprotein; Signal;
                        Zymogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tor
```

```
RESULT 10
                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                   Q9UKQ9;
16-OCT-2001 (Rel. 4
16-OCT-2001 (Rel. 4
28-FEB-2003 (Rel. 4
Kallikrein 9 precur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
PROPEP
CHAIN
ACT SITE
ACT SITE
ACT SITE
DISULFID
  "The expa:
molecular
        SEQUENCE FROM N.A.
MEDLINE=20247258; PubMed=10783266;
Yousef G.M., Diamandis E.P.;
"The expanded human kallikrein gene
                                                                                    MEDLINE=20118156; PubMed=10652563; Yousef G.M., Luo L.-Y., Diamandis E.P.;
                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                            "Identification of novel human kallikrein-like
                                                                                                       SEQUENCE FROM N.A.
                                                                                                                          NCBI_TaxID=9606;
                                                                                                                                                        Homo sapiens
                                                                                                                                                                 KLK9.
                                                                                                                                                                                                                                     KEK9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                       anticancer
                                                                  19q13.3-q13.4.";
                                                                                                                                                                                                                                    HUMAN
                                                                                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                                                                           171
                                                                                                                                                                                                                                                                                                                                                                                   138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101;
                                                                                                                                                                                                                                                                                                                                                                                                      55
                                                                                                                                                                                                                                                                                                                                                                                                                         79
                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                 AVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                         HQKCENAYPGNITDTMVCASVQEGGKDSCQGDSGGFLVCNQSLQGIISWGQDPCAITKKP
                                                                                                                                                                                                                                                                                                                                     PKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHP
                                                                                                                                                                                                                                                                                                                                                                                   LMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILS
                                                                                                                                                                                                                                                                                                                                                                                                                        SWVLTAAHCGNKPLWARVGDDHLLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHD
                                                                                                                                                                                                                                                                                   GVYTKVCKYVDWIQETMKNN
                                                                                                                                                                                                                                                                                                                                                                IMLVKMASPVSITWAVRPETESSRCVTAGTSCLISGWGSTSSPQLRLPHTERCANITIE
                                                                                                                                                                                                                                                                                                                                                                                                      RWILTAAHCIKPRYIVHLGQHNIQKEEGCEQTRTATESFPHPGFNNS----LPNKDHRND
                                                                                                                                                                                                                                                                                                                                                                                                                                            RILOLILLAL ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                               KLLPLLMAQLMAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQ
                                                        Res. 19:2843-2852(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 62
203
203
135
135
135
136
136
136
136
136
136
136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                       (Human)
                                                                                                                                                                                    precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                            40, Createa,
40, Last sequence update,
41, Last annotation updat
ursor (EC 3.4.21.-) (Kalli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18
250
250
110
203
163
237
237
237
237
237
237
237
237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27466 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                            -ATGLVGGETRI----IKGFECKPHSQPWQAALFEKTRLLCGATLIAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50;
 member,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 503.5;
Pred. No. 1.7e
50; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (in isoform /FTId=VSP 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED
                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTIVATION
                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -> MORLRWLRDWKSSGRGLTAAKEPGARSSPLOAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FTId=VSP_005402.
192D910BBCDC7A56 CRC64;
e family: locus
KLK-L3.";
                                                                                                                                                                                    n update)
(Kallikrein-like
                                                                                                                                                                                                                                    250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC . .)
(GLCNAC . .)
(GLCNAC . .)
(GLCNAC . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.7e-38;
ches 96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PEPTIDE (POTENTIAL).
                                                                                                                                                                                                                                    A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1;
                                                                           genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BY SIMILARITY) (BY SIMILARITY)
         characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY)
SIMILARITY)
                                                                            ဋ္ဌ
                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13:
                                                                                                                                                                                     ಀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                             54
                                                                                                                                                                                                                                                                                                                           230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
```

```
Ş
                                                                                                                          Query Match
Best Local S
Matches 104
                                                                                                                                                                                                                                                                                                                                                                                                                                        PEAM, PF00089; txypsin; 1.

PRINTS; PR00722; CHYMOTRYPSIN.

SMART; SM00020; Tryp SPC; 1.

PROSITE; PS50240; TRYPSIN DOM; 1.

PROSITE; PS00134; TRYPSIN HIS; 1.

PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                             CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                      CHAIN
ACT SITE
ACT SITE
ACT SITE
ACT SITE
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lamerdin J.E., McCready P.M., Skowronski E., Viswanathan V.,
Burkhart-Schultz K., Gordon L., Dias J., Ramirez M., Stilwagen S.,
Phan H., Velasco N., Do L., Regala W., Terry A., Brower A., Garnes.
Danganan L., Erler A., Christensen M., Georgescu A., Avila J., Liu
Andreise T., Trankheim M., Attix C., Amico-Keller G., Coefield J.,
Duarte S., Lucas S., Bruce R., Thomas P., Quan G., Kronmiller B.,
Arellano A., Sanders C., Ow D., Nolan M., Trong S., Kobayashi A.,
Arellano A., Sanders G., Ow D., Nolan M., Trong S., Kobayashi A.,
Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
-i- SUBCELJULAR LOCATION: Secreted (Probable).
-i- TISSUE SPECIFICITY: SKIN, THYMUS, TRACHEA, CEREBELLUM AND SPINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced throubetween the Swiss Institute of Bioinformatics and the the European Bioinformatics Institute. There are no reuse by non-profit institutions as long as its contenmodified and this statement is not removed. Usage by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GG; GO:0005576; C:extracellular; NAS.
GO; GO:0006508; P:proteolysis and pep
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                              Hydrolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (Some send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gan L., Lee I., Smith R., Argonza-Barrett R., Lei Moss P., Paeper B., Wang K.; "Sequencing and expression analysis of the serine cluster located in chromosome 19q13 region.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEROPS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. Lamerdin J.E., McC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=20510030;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     605504;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AF135026; AAD26427.2; -. AF243527; AAG33362.1; -.
        17
                                            104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257:119-130(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P00763;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC011473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; S01.307; -.
HGNC:6370; KLK9.
                                                               Similarity
LAKLLPLIMAQIWAABAALIPQNDTRIDPBAYGA-PCARGSQPWQVSIFNGISFHCAGVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65:184-194(2000).
                                                                                                                                                              16
63
111
204
48
136
143
175
200
131
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IDPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG23255.1;
                                                                                                                                                                                                                                                                                                                                                                                                                            protease;
                                                                                                                        211 NW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=11054574;
                                                                                                                                                                250
63
111
204
164
64
238
210
189
225
131
                                                             33.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ser_protease_Try.
                                                                                                         G; Glycoprotein; Signal.

POTENTIAL.

POTENTIAL.

RALLIKEEN 9.

KALLIKEEN (BY SITEM (BY SI CHARGE RELAY SYSTEM (BY SI CHARGE RELAY SYSTEM (BY SI CHARGE RELAY SYSTEM (BY SIMILARITY.

BY SIM
                                        39,
                                                             Score
Pred.
                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptidolysis; NAS
                                                           502; DB 1;
No. 2.3e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         It is produced through
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                There are no restrictions ng as its content is in
                                          99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lei H., McCuaig
                                                                         Length 250;
                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protease gene
                                                                                                                                                            (POTENTIAL)
                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                    ( SIMILARITY).
( SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a collaboration MBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SPINAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       育
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S J
                                   9
```

75

```
RESULT 11

KIKE HMAN

ID KIKE H

AC Q990G3

DT 16-OCT

DT 16-OCT

DT 28-FEB

DE KAllik

DE (KIK-L

GN KIK14

OS Home s

OC Eukary

OC Eukary

OC Mammal

OX NCBI_T

RN [1]

RP SEQUEN

RA Yousef

RT "Molec

RT "Molec

RT "Molec

RT "Molec

RT "Ident

RN [2]

RP SEQUEN

RA Hopper

RA Dangan

RA Clemen

RA Glemen

RT TISSUB

RA Harvey

RA Clemen

RT J. Sub

CC -i- SUI

CC -j- Ti

CC -j- Ti

CC -j- Ti

CC -j- FE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                Phan H., Velasco N., Do L., Regala M., Terry A., Brower A., Garnes Danganan L., Erler A., Christensen M., Georgescu A., Avila J., Liu, Andreise T., Trankheim M., Attax C., Amico-Keller G., Coefield J., Avellan A., Sanders C., Ow D., Nolan M., Trong S., Kronmiller B., Olsen A.S., Carrano A.V.;

"Sequence analysis of chromosome ''
         "Tissue-specific expression patterns and fine map; kallikrein (KLK) locus on proximal 19q13.4."; J. Biol. Chem. 275:37397-37406(2000).
-i- SUBCELLULAR LOCATION: Secreted (Probable).
-i- TISSUB SPECIFICITY: HIGH EXPRESSION IN BRAIN, FETAL LIVER. ALSO EXPRESSED IN LIVER, PANCREA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-OCT-2001
16-OCT-2001
28-FEB-2003
                                                                                                                                              MEDLINE=20545474;
Harvey T.J., Hoope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yousef G.M., Diamandis E.F.; Yousef G.M., Diamandis E.F.; mapping, and tissue "Molecular characterization, mapping, and tissue a bormonally regulated kallikrein-like gene."; enhmitted (JUN-1999) to the EMBL/GenBank/DDBJ dat
                                                                                                                                 Clements J.A.;
                                                                                                                                                                                 TISSUE SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                        serine protease gene located on human in prostate and skeletal muscle."; genomics 73:117-122(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Identification and characterization of KLK14, a novel kallikrein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hooper J.D., Bui L.T., Rae F.K., Ashworth L.K., Clements J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.
MEDLINE=21250997; PubMed=11352573;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kallikrein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9P0G3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KLK14 OR KLKL6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KLKE HUMAN
 PROSTATE AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               254 QHPAVYTQICKYMSWINKVIRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RRPAVYTSVCHYLDWIQEIMEN 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NDDIMLIRLPROARLSPAVQPINLSQTCVSPGMQCLISGWGAVSSPKALFPVTLQCANIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ILENKLCHWAYPGHISDSMLCAGLWEGGRGSCQGDSGGPLVCNGTLAGVVSGGABPCSRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ISDRWLLTAAHCRKPYLWVRLGEHHLWKWEGPEQLFRVTDFFPHPGFNKD---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VDQSWVLTAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTD 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LCALLSLLAGHGWA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (Rel. 40, Last sequence update)
3 (Rel. 41, Last annotation update)
14 precursor (EC 3.4.21.~) (Kallikrein-like protein 6)
                                                                                                                                              Hooper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
 SKELETAL MUSCLE
                                                                                                                                       Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Eutele
Catarrhini; Hominidae; Homo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Harvey T.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251
                                                                                                                                         Stephenson S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                      mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Myers S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19q13.4 and
                              BONE
             DNE MARROW AND FETAL SPLEEN,
                                                                                                        윥
                                                                                                                                          Ashworth L.K.,
                                                                                                        the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                        human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KLKL6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSANDH
                                                                                                                                                                                                                                                                                                                          . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              52
```

```
RESULT 12
     SEE PARTE
                                                                                                                                                                                  Ś
                                                                                                                                                                                                                문
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                               몽
                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 97
ZW-FEB-2003 (Rel. 38, Last sequence update)
Neuropsin precursor (EC 3.4.21.-) (NP) /v-1.
Protease 1).
KLK8 OR PRSC10 ~~
                                  NRPN RAT STANDARD;
088780;
15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last seq
28-FEB-2003 (Rel. 41, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROPER
CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
ACT_SITE
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00089; trypsin; 1.

PRINTS; PR00722; CHYMOTRYPSIN,
SMART; SM00020; Tryp_Scrit,
PR0SITE; PS50240; TRYPSIN DOM; 1.

PROSITE; PS00134; TRYPSIN HIS; 1.

PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no rest
use by non-profit institutions as its content
modified and this statement is not removed. Usage by an
entities requires a license agreement (See http://www.isb-
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:0005576; C:extracellular; NAS.
GO; GO:0006508; P:proteolysis and peptidolysis; NAS.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM; 606135;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEROPS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a c
between the Swiss Institute of Bioinformatics and the EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                            200
                                                                                                                                                                                     225
                                                                                                                                                                                                                140
                                                                                                                                                                                                                                         166
                                                                                                                                                                                                                                                                                            107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF161221; AAD50773.2; -. AF283669; AAK48523.1; -. AF283670; AAK48524.1; -.
                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                               49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P00763; 1DPO.
                                                                                                                                                                                                                                                                                                                                                                        97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AC011473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGNC:6362; KLK14.
                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                              COSDSGGPLVCDETLOGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIR
                                                                                                                                                                                                                                  GDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDR-GQDP
                                                                                                                                                                                                                                                           TOQVLRVVRQVTHPNYNS----RTHDNDLMLLQLQQPARIGRAVRPIEVTQACASP
                                                                                                                                                                                                                                                                                                               GHTCTRSSQPWQAALLAGPRRRFLCGGALLSGQWVITAAHCGRPILQVALGKHNLRRWEA
                                                                                                                                                                                                                                                                                                                                        GAPCARGSQP#QVSLFNG--LSFHCAGVLVDQSWVLTAAHCGNKFLWARVGDDHLLLLQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S01.029;
                                                                                                                                                         COGDSGGPLVCRGQLOGLVSWGMERCALPGYPGVYTNLCKYRSWIEETMR
                                                                                                                                                                                                           GTSCRVSGWGTISSPIARYPASLQCVNINISPDEVCQKAYPRTITPGMVCAGVPQGGKDS
                                                                                                                                                                                                                                                                                     -EQLERTIRSVVHPKYHQGSGPILPRRIDEHDLMLLKLARPVVPGPRVRALQLPYRCAQP
                                                                                                                                                                                                                                                                                                                                                                                                                        19
25
67
111
204
31
52
143
175
200
251 AA;
                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                ine protease; Signal; Zymogen.

1 B FOTENTIAL.

24 ACTIVATION PEPTIDE (POTENTIAL).

5 251 KALLIKREIN 14.

67 CHARGE RELAY SYSTEM (BY SIMILARITY CHARGE RELAY SYSTEM (BY SIMILARITY CHARGE RELAY SYSTEM (BY SIMILARITY BY SIMILARITY.

1 164 BY SIMILARITY.

1 164 BY SIMILARITY.

1 189 BY SIMILARITY.

3 210 BY SIMILARITY.

5 189 BY SIMILARITY.

5 189 BY SIMILARITY.

6 BY SIMILARITY.

6 BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG23260.1;
                                                                                                                                                                                                                                                                                                                                                                                                                         27452 MW;
                                                                                                                                                                                                                                                                                                                                                                                    42.2%;
                                                                                                                                                                                                                                                                                                                                                                                                33.48;
                                                                                                                                                                                                                                                                                                                                                                     36;
                                                                                                                                                                                                                                                                                                                                                                                 Score 500; 1
                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 3.56
5; Mismatches
                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                        9087953BAFA7ED25 CRC64;
                                                                                          260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (See http://www.isb-sib.ch/announce/
                        (Kallikrein
                                                                                         A
                                                                                                                                                                                                                                                                                                                                                                                               DB 1;
                                                                                                                                                                                                                                                                                                                                                                                   .5e-38,
                                                                                                                                                                                                                                                                                                                                                                                            Length 251;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BY SIMILARITY). (BY SIMILARITY). (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                     Indels
                          8
                          (Brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                    12;
                                                                                                                                                                                 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a collaboration
                                                                                                                                                        249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             outstation
                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                  224
                                                                                                                                                                                                                                                            139
                                                                                                                                                                                                                                                                                       165
                                                                                                                                                                                                                                                                                                               87
                                                                                                                                                                                                                                                                                                                                                                  4
```

```
δ
                                                     문
                                                                            Ś
                                                                                                     밁
                                                                                                                          S
                                                                                                                                                       밁
                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                       Query Match
Best Local s
Matches 100
                                                                                                                                                                                                                                                      CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                    CHAIN
ACT_SITE
ACT_SITE
ACT_SITE
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIJINE-93889725, pubmed-9722524;

Davies B.J., Pickard B.S., Steel M., Morris R.G.M., Lathe R.;

"Serine proteases in rodent hippocampus.";

J. Biol. Chem. 273:23004-23011(1998).

-i- FUNCTION: SUGGESTED TO BE INVOLVED IN KINDLING EPILEPTOGENESIS AND HIPPOCAMPAL PLASTICITY. HAS A STRONG PROTEOLYTIC ACTIVITY AGAINST FIBRONECTIN (BY SIMILARITY).

-i- CAPALYTIC ACTIVITY: Preferential cleavage: Arg-, Lys-.

-i- SUBCELLULAR LOCATION: Secreted (By similarity).

-i- TISSUE SPECIFICITY: RESTRICTED TO HIPPOCAMPUS.

-i- TISSUE SPECIFICITY: RESTRICTED TO HIPPOCAMPUS.
                                                                                                                                                                                                                                                                                                                                                                                                       PROPER
                                                                                                                                                                                                                                                                                                                                                                                                                               Hydrolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00134;
PROSITE; PS00134;
PROSITE; PS00135;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AJ005641;
HSSP; Q61955; IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (s or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chor
Mammalia; Eutheria; Rode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEROPS; S01.244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-Fischer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
      185
                                                     125
                                                                              142
                                                                                                                              83
                                                                                                                                                                                                       100;
                                                                                                     70
                                                                                                                                                       13
                                                                                                                                                                              23
                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PR00722; CHYMOTRYPSIN.
                      EALINGAALDEGODECOSDEGGEFFACETTOGITEMGAAFCGSVOHEVAALO 501
                                                                   KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
ERAYPGKITEGMYCAGSSNGADTCQGDSGGPLVCNGVLQGITTWGSDPCGKPEKPGVYTK
                                              RLQNSANLGDKVKPIELANLCPKVGQKCIISGWGTVTSPQENFPNTLNCAEVKIYSQNKC
                                                                                                                      TAAHCGNKELWARVGDDHLLLL-QGEQLERTTRSVVHPKYHQGSGPILPERTDEHDLWLL 141
                                                                                                                                               ILLFLLMGAWAGLTRAQGSKI----LEGQECKPHSQPWQTALFQGERLVCGGVLVGDRWVL
                                                                                                                                                                      LIMAQIWAABAALLEQNDTRLDEEAYGAECARGSQFWQVSLFNGLSFHCAGVLVDQSWVL
                                                                                                 TAAHCKKOKYSVRLGDHSLQKRDEPEQEIQVARSIQHPCFN-SSNP
                                                                                                                                                                                                   33.4%;
Carity 39.7%;
Conservative 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INPM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAA06643.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Brain:
                                                                                                                                                                                                                                                               protease;
28
32
360
73
120
120
173
174
174
218
218
218
1198
110
                                                                                                                                                                                                                                                                                                                                                                                                                                         TRYPSIN SER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
Rodentia;
                                                                                                                                                                                                                                                      28510
                                                                                                                                                                                                                                                    WW;
                                                                                                                                                                                                     38;
                                                                                                                                                                                                                                                             CHARGE RELAY SYSTEM CHARGE RELAY SYSTEM CHARGE RELAY SYSTEM BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                       Glycoprotein; Zymogen;
                                                                                                                                                                                                  Score 499.5; DB
Pred. No. 4e-38;
8; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                   58DF4F0602A0B7F5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            There are no rest
                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                   105;
                                                                                                                                                                                                                                                   CRC64;
                                                                                                                                                                                                                                                                                                                                                     78)
78)
78)
                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                   ( SIMILARITY)
( SIMILARITY)
( SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                         260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL
                                                                                                 -EDHSHDIMLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Бņ
                                                                                                                                                                                                  9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    collaboration
L outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .ch/announce/
                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
 244
                                                184
                                                                        201
                                                                                                 124
                                                                                                                                                 69
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEKB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Burkhart-Schultz K., Gordon L., Dias J., Ramirez M., Stilwagen S., Phan H., Velasco N., Do L., Regala W., Terry A., Brower A., Garnes Danganan L., Exler A., Christensen M., Georgescu A., Avila J., Liu Andreise T., Trankheim M., Attix C., Amico-Keller G., Coefield J., Duarte S., Lucas S., Bruce R., Thomas P., Quan G., Krommiller B., Arellano A., Sanders C., Ow D., Nolan M., Trong S., Kobayashi A., Olsen A.S., Carrano A.V.;
             Pfam; PF00089; trypsin; T.
SMART; SM00020; Tryp SPc; 1.
PROSITE; PS50240; TRYPSIN DOM; 1.
PROSITE; PS00134; TRYPSIN HIS; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9UKH3; Q9Y433;
16-OCT-2001 (Rel. 4
16-OCT-2001 (Rel. 4
28-FEB-2003 (Rel. 4
                                                                                                                                           MEROPS; S01.306; -.
Genew; HGNC:6361; KLK13.
MIM; 605505; -.
                                                                                                                                                                                      EMBL; AC011473; AAG23259.1;
EMBL; AL050220; CAB43320.1;
HSSP; P00763; 1DPO.
                                                                                                                                                                                                                                                                                                   the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                               Ansorge W. Wirkner U., Mewes H.-W., Gassenhuber J., Wiesschaft (MAY-1999) to the EMBL/GenBank/DBJ databases subcELLULAR LOCATION: Secreted (Probable).
-!- TISSUE SPECIFICITY: EXPRESSED IN PROSTATE, BREAST, 7
                                                                                                                                                                                                                                                                   entities requires a license agreement or send an email to license@isb-sib.ch
                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Sequence analysis of chromosome 19q13.4."; Submitted (OCT-2000) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
Lamerdin J.E., McCready P.M.,
Burkhart-Schultz K., Gordon L
                                                                           GO; GO:000576; C:extracellular; NAS.
GO; GO:0006508; P:proteolysis and peptidolysis;
InterPro; IPR00154; Ser protease_Try.
Pfam; PF00089; trypsin; I.
                                                                                                                                                                                                                                       EMBL; AF135024; AAD26425.2; -.
                                                                                                                                                                                                                                                                                                                                                                                               -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1. KALLIKREIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Uterus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 1-180 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yousef G.M., Chang A., Diamandis E.P.;
Yousef G.M., Chang A., Diamandis E.P.;
"Identification and characterization of KLK-L4, a new kallikrein-like
gene that appears to be down-regulated in breast cancer tissues.";
J. Biol. Chem. 275:11891-11898(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=20229789; PubMed=10766816; Yousef G.M., Chang A., Diamandis E.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KE G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLK13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kallikrein 13
                                                                                                                                                                                                                                                                                                                                                                                                                   SALIVARY GLAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OR KLKL4.
                                                                                                                                                                                                                                                                  an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ICRYTNWIKKTM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ICKYMSWINKVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Rel. 40, Created)
(Rel. 40, Last sequence update)
(Rel. 41, Last annotation update)
(Rel. 41, Last annotation update)
(Rel. 41, East annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
protease; Glycoprotein; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                    ALT_INIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277
                                                                                                                                                                                                                                                                                 (See http://www.isb-sib.ch/announce,
                                                                                                                                                                                                                                                                                              There are no restrictions 
ng as its content is in 
wed. Usage by and for con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          databases
                                                                                                                                                                                                                                                                                                                                                                                                                              BREAST, TESTIS
                                                                                                                                                                                                                                                                                                                                               and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wiemann
                                                                                                                                                                                                                                                                                                                                                    EMBL
                                                                                                                                                                                                                                                                                                                                                a collaboration MRT, outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .. Liu S.,
                                                                                                                                                                                                                                                                                                                                               outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                 ဝှင်
                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                               way
```

```
RESULT 14
TRY1 BATTEL B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRY1_BOVIN
P00760;
21-JUL-1986
01-NOV-1997
15-SEP-2003
REVISIONS.
MEDLINE=75146445; PubMed=1092332;
Titani K., Ericsson L.H., Neurath H., Walsh K.A.;
"Amino acid sequence of dogfish trypsin.";
                                                                                                                                                                                                                                                                                                             TISSUB=Pancreas;
Okajima T., Maniwa M.
Submitted (OCT-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                     Bos taurus (Bovine).
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
CONFLICT
                                                                                                      Hartley B.S.;
"Homologies in
                                                                                                                                                                                             "Covalent structure of bovine remaining amides.";
                                                                                                                                                                                                                                              MEDLINE=67168848;
Mikes O., Holeysov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACT_SITE
                                                                                                                                                                                                                                                                               SEQUENCE OF 15-243,
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                      Bovidae; Bovinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Trypsinogen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
CHAIN
                                                                                                                                                               REVISIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACT
                                                                                                                                           EDLINE=72035053;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49 GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKFLWARVGDDHLLLLQ-GE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ,
99
                                                                                            Trans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                          Biophys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TICRVSGWGTITSPQVNYPKTLQCANIQLRSDEECRQVYPGKITDNMLCAGTKEGGKDSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOCOVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGL-DRGODPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QVREVVHSIPHPEXRRSPTHL----NHDHDIMLLELQSPVQLTGYIQTLPLSHNNRLTPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPY-RCAQPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĠYTCFPHŚQPWQAALLVQGRLLCGĠVĹVHPKWVĹTAAHCLKEGLKVYLGKHALGRVEAGE
                                                                                                                                                                                                                                                                                                                                 Maniwa M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Rel.
(Rel.
(Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Rel. 01,
(Rel. 35,
(Rel. 42,
cationic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R. Soc. Lond., B, Bic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,
                                                                                                                                                                                           Res.
                                                                                                                                                                                                                                                            PubMed=5967094;
                                                                                                                                                                                                                                                                                                                                                                                                                      Bos.
                                                                                                                                           PubMed=4399051;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277
277
277
218
218
277
224
239
                                                                                                                                                                                                                                                                             AND DISULFIDE
                                                                                                                                                                                                                                                                                                               ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30570 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
precursor (EC 3.4.21.4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                               Nagao S., Fujikawa H.,
o the EMBL/GenBank/DDBJ
                                                                                                                                                                                          Commun.
                                                                                                                                                                                                                        Tomasek V., Sorm
vine trypsinogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KALLIKREIN 13.
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 497.5;
Pred. No. 6.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VNYPKTLQCAN -> GMHPHRWPEA
BA8A9E8DCFBSDS42 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                          24:346-352 (1966)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                        Biol.
                                                                                                                                                                                                                                                                               BONDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                        Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .5e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                          The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
                                                                                        257:77-87 (1970)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GMHPHRWPEAP (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       85
;
                                                                                                                                                                                                                                                                                                             Goto S.;
databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Beta-trypsin)
                                                                                                                                                                                                                          position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BY
(BY
YB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                            ဝ္ဗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277;
                                                                                                                                                                                                                          the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107
```

```
"The disulphide bridges of trypsin.";
J. Mol. Biol. 12:929-937(1965).
-:- CATALYTIC ACTIVITY: Preferential cleavage: Arg-(-Xaa, Lys-(-Xaa.
-:- SUBCELLULAR LOCATION: Extracellular.
-:- TISSUE SPECIFICITY: SYNTHESIZED IN THE ACINAR CELLS OF THE
                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics, and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=77112431; PubMed=556951;
Kossiakoff A.A., Chambers J.L., Kay L.M., Stroud R.M.;
"Structure of bovine trypsinogen at 1.9-A resolution.";
Biochemistry 16:654-664(1977).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIINE-76072097; PubMed=512;
Bode M., Schwäger P.;
"The refined crystal structure of bovine beta-trypsin at 1.8-A resolution. II. Crystallographic refinement, calcium binding site, benzamidine binding site and active site at pH 7.0.";
J. Mol. Biol. 98:693-717(1975).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFIDE BONDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochemistry 14:1358-1366(1975).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kauffman D.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=66079271; PubMed=5892911;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            K-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         K-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF CALCIUM-BINDING SITE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIM: AUTOCATALYTIC CLEAVAGE AFTER LYS-20 LEADS TO BETA-TRYPSIN RELEASING A TERMINAL HEXAPEPTIDE. SUBSEQUENT CLEAVAGE AFTER LYS-145 LEADS TO ALPHA-TRYPSIN. FURTHER CLEAVAGE AFTER LYS-190 YIELDS PSEUDOTRYPSIN. A CLEAVAGE MAY ALSO OCCUR AFTER ARG-119. SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.

DATABBASE: NAME-Worthington enzyme manual;
2TGA;
1TGB;
1TGC;
2TGD;
1TGN;
2TGP;
1TGS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WWW="http://www.worthington-biochem.com/manual/T/TRY.html".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PANCREAS
                                                                                                                                                                                                                                                                                                                                                                              D38507;
15-JUL-92.
31-JAN-94.
31-JAN-94.
31-JAN-94.
31-JAN-94.
31-JUL-94.
30-NOV-94.
                                                                                                                                                                                                                                                                    14-MAR-85.
15-OCT-90.
09-APR-85.
                                                                                                                                                                                                                                                                                                       09-APR-85.
07-MAY-86.
22-OCT-84.
14-MAR-85.
                                                                                                           15-APR-91.
14-MAR-85.
14-MAR-85.
15-APR-91.
09-APR-85.
                                                                                                                                                                                                                    15-JUL-92.
14-MAR-85.
15-JUL-91.
                                                                                                                                                                     14-MAR-85.
16-APR-87.
                                                                                                 S
                                                                                                                                                                                              08-NOV-85
                                                                                                                                                                                                         14-MAR-85
                                                                                                                                                                                                                                                                                                                                                        14-MAR-85
                                                                                                                                                                                                                                                                                                                                                                              BAA07516.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВΥ
 26-SEP-01
26-SEP
                                                                                                                                                                                                                                                                                                                                                    26-SEP-01.
26-SEP-01.
26-SEP-01.
26-SEP-01.
26-JUL-00.
26-SEP-01.
26-SEP-01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-OCT-96.
14-OCT-96.
14-OCT-96.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-NOV-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-NOV-97.
26-JAN-95.
26-JAN-95.
24-JUN-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-NOV-94
30-NOV-94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-DEC-98.
16-DEC-98.
11-NOV-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-AUG-97
12-NOV-97
12-NOV-97
                                                                                                                                                                                                                                                                                                                             26-SEP-01.
26-SEP-01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-MAR-99.
30-JAN-02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-OCT-98
13-JAN-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-JAN-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-SEP-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-JAN-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-0CT-95
```

```
RESULT 15
TRY2_MOUST
ID TRY2
AC P0712
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Best 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRY2_MOUSE
P07146;
01-APR-1988
01-APR-1988
                                                                          MEDIINE-87066713; PubMed-3641189; Stevenson B.J., Hagenbuechle O., Wellauer P.K.; Stevenson B.J., Hagenbuechle O., Wellauer P.K.; "Sequence organisation and transcriptional regulation of the mouse elastase II and trypsin genes."; Mucleic Acids Res. 14:8307-8330(1986). Mucleic Acids Res. 14:8307-8330(1986). -!- CATALYTIC ACTIVITY: Preferential cleavage: Arg-|-Xaa, Lys-|-Xaa.-:- SUBCELLULAR LOCATION: Extracellular.-:- SUBCELLULAR LOCATION: Extracellular.-:- SIMILARITY: BELONGS TO PEFTIDASE FAMILY S1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOUSE
                           petween
                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. STRAIN=A/J;
                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                     Trypsin
                                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
    European Bioinformatics Institute.
SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23 LLMAQLWAAEAALLEQNDTRLDPEAYGAPCARGSQPWQVSLENGLSFHCAGVLVDQSWYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KSAYPGQITSNMFCAGYLEGGKDSCQGDSGGPVVCSGKLQGIVSWG-SGCAQKNKPGVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KVCNYVSWIKQTIASN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EVELABGAALINWICYG-TDEGÓDEGÓSDSGGETACDELTÓGITSMGAXACGSVÓHÞVALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLARPVVFGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAAHCYKSGIQVRLGEDNINVVEGNEQFISASKSIVHPSYNS-----NTLNNDIMLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAHCGNKPLWARVGDDHLLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IFLALLGNAVA - - FPVDDD- - DKIVGGYTCGANTVPYQVSLNSGYHF - CGGSLINSQWVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KLKSAASINSRVASISLPTSCASAGTQCLISGWGNTKSSGTSYPDVLKCLKAPILSDSSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-APR-01
22-JAN-02
22-JAN-02
22-JAN-02
22-FEB-02
22-JAN-02
22-JAN-02
22-FEB-02
22-APR-02
22-APR-02
21-SEP-01
11-SEP-01
11-SEP-01
12-SEP-01
                                                                                                                                                                                                                                                                                                                                                                                                       (Rel. 07, Created)
(Rel. 07, Last sequence update)
(Rel. 41, Last annotation update)
(Rel. 42, Arecursor (EC 3.4.21.4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                 (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                    Chordata; Craniata; Vertebrata; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 497; DB 1;
Pred. No. 6.2e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              246 AA
                                                                                                                                                                                                                                                                                                                                                                                                                     (Pretrypsinogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                                       Π).
                                                                                                                                                                                                                                                                                                                                        Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141
```

Search completed: November 25, Job time : 19 secs

2003,

09:07:36

```
8
                                             밁
                                                              8
                                                                                       문
                                                                                                         Ş
                                                                                                                                 맑
                                                                                                                                                     Ś
                                                                                                                                                                              딹
                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; Province: CHING.
PRINTS; PRO0722; CHING.
SMART; SM00020; Tryp SPc; 1.
PROSITE; PSS0240; TRYPSIN DOM; 1.
PROSITE; PSS00134; TRYPSIN HS; 1.
PROSITE; PS00135; TRYPSIN SER; 1.
                                                                                                                                                                                                                        Matches 105;
                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                   CHAIN
ACT SITE
ACT SITE
ACT SITE
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                DISULFID
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; X04574; CAA28243.1;
EMBL; X04577; CAA28245.1;
FIR; B25528; B25528.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as long as modified and this statement is not removed. U entities requires a license agreement (See htt or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGD; MGI:102759; Try2
InterPro; IPR001314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001314; Chymotrypsin.
InterPro; IPR001254; Ser_protease_Try.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEROPS;
                                                                                                                                                                                                                                                                    SEQUENCE
                                             172
  231
                                                                                                             142
                      261
                                                                 202
                                                                                                                                  S
                                                                                                                                                                                                  23 LLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S01.064; -.
                                                                                                                                                                                                                                  Similarity
                                                                                                                                 SAAHCYKYRIQVRLGEHNINVLEGNEQFVDSAKIIRHPNYNSW---
                                                                                                                                                                   LILALVGÁÁVÁ--PÉVDDD--DKIVGGYTCRESSVEYQVSLNAGYHE-CGGSLINDQWVV
KVCNYVDWIQNTIADN
                      QICKYMSWINKVIRSN
                                                         EVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT
                                                                                                                                                      TAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                             EASYPGDITNNMICVGFLEGGKDSCQGDSGGPVVCNGELQGIVSWG-YGCAQPDAPGVYT
                                                                                       KLASPVTLNARVASVPLPSSCAPAGTQCLISGWGNTLSNGVNNPDLLQCVDAPVLPQADC
                                                                                                          KLARPVVPGPRVRALQLPVRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                    246
                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                         16
24
63
107
200
200
30
48
132
132
132
137
1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1DPO.
                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                              246
63
107
200
160
64
233
206
185
220
                                                                                                                                                                                                                                33.0%;
                                                                                                                                                                                                                                                                    26203 MW;
                      276
  246
                                                                                                                                                                                                                        40;
                                                                                                                                                                                                                                                                            ACTIVATION PEPTIDE.
TRYPSIN II, ANIONIC.
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
CHARGE RELAY SYSTEM (
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                           Digestion; Pancreas;
                                                                                                                                                                                                                                 Score 494;
Pred. No. 1.
                                                                                                                                                                                                                                                                   OUTRED FOR SPECIFICITY (BY SIMILARITY). CEF8C97AAC2D07AD CRC64;
                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                 DB 1;
.2e-37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Usage
                                                                                                                                                                                                                        95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         its content
                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                         78)
78)
                                                                                                                                                                                                                                                                                                                                                                                                                           Zymogen; Signal
                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                         Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                        16;
                                                                                                                                  -TLDNDIMLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in no way
                                                                                                                                                                                                                        Gaps
                                                                                                                                  111
                                                                                                                                                                                                  82
                                                                                       171
                                                                                                                                                                              59
```

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM protein - protein search, using sw model
                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                   PIR 76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            November 25, 2003, 08:58:10 ; Search time 27 Seconds (without alignments) 983.058 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-021-368-1
1496
1 MRAPHLHLSAASGARALAKL.....AVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283308 seqs, 96168682 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                          283308
```

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	φ.	_C	4.	(L)	2	1	
439.5	443	445.5	445.5	450	450.5	453	457	457.5	•		464.5	467	468.5	468.5	469.5	470	473.5	477.5	482	483	٠,	488.5	491	494	505.5	506	513	549	Score
29.4	9	9	٩	٥.	٥.	٥.	.0	٥.	0		31.0	1.	۳	1.		۲.		31.9	2	2	'n	'n		$\omega$	ω.	ω.		o !	% Query Match
261	240	242	242	260	231	248	243	261	247	246	259	229	304	238	248	247	242	247	246	231	247	246	229	246	247	247	260	253	Length
N	N	N	N	N	N	Ŋ	N	ผ	ы	Ь	N	<b>)</b> 3	N	N	N	-ر	N	N	بر	L	N	<b>)</b> 3	۲	N	N	بر	N	2	DB
845303	839047	831776	S31775	A37938	S31778	S55067	A35871	A31136	A25852	TRDGC	I38363	TRDFS	S33496	S31779	355066	B25852	\$49489	A27547	TRRT1	TRPGTR	\$05494	TRRT2	TRBOTR	B25528	S13813	TRDG	I56559	A53968	;
tissue kallikrein	(EC 3.4.	(EC 3.4.2	(EC 3.4.	kallikrei	(EC 3.4.	_	(EC 3.4.	kallikrei	_	in (EC 3.4.	(EC 3.4.	(BC 3.4.	(EC 3.4.2	_	(EC 3.4.	EC 3.4.	(EC 3.4.	(EC 3.	(EC 3.4.	(EC 3.4.2	(EC 3.4.2	(EC 3.4.2	EC 3.4.	(EC 3.4.2	(EC 3.4.2	(E)	neuropsin - mouse	serine proteinase	iption

RESULT 2

neuropsin - mouse C;Species: Mus musculus (house mouse)

25 25 25 25 25 25 25 25 25 25 25 25 25 2	X A B B C C C C C C C C C C C C C C C C C	
Superfa 30-245/ Query M Best Lo Matches	RESULT 1 RES	0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
######################################	RESULT 1  Serine proteinase S.  Serine proteinase S.  N;Alternate names:    C;Species: Home sap.  C;Accession: A53968  C;Accession: A53968  C;Accession: A53968  N;Title: Cloning, e.  A;Reference number:  A;Reference number:  A;Reference from: A53968  A;Status: prelimina:  A;Residues: 1-253  A;Rocession: A33968  A;Status: prelimina:  A;References: 1-253  A;Crosa-references:  C;Gene: GDB: PRSS6;  A;Cross-references:  C;Gene: GDB: PRSS6;  A;Capp. position: 733	42343 427-4336 427-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 429-5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
C;Superfamily: trypsin; trypsin homology F;30-245/Domain: trypsin homology <try 108;="" 134="" 14="" 169="" 194="" 2="" 229="" 253="" 40.9%;="" 45;="" 58="" 74="" aqhpavytqickymswinkvirsn="" aralakllpllmaqlwaaeaallp="" arslllpqillislaletageeaa="" best="" conservative="" db="" dd="" dehdlmilklarpvvpgprvfalq="" dehdlmlvklarpvvpgprvfalq="" klispqdctkvykdllenswlcag="" local="" m="" match="" matches="" pndpgvytqvckftkwindtmxkh<="" pred="" query="" qy="" similarity="" td="" tilspkecevfypgvvtnnwicag="" vlvdqswyltaahcgnkplwarvg ="" vlvnerwyltaahckaneytvhlg=""   :  :       =""><td>teinase SCCE   hemosapiens sul-1995 #se -Ni-1995 #s -Ni-1995</td><td>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</td></try>	teinase SCCE   hemosapiens sul-1995 #se -Ni-1995 #s -Ni-1995	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Pypsin; trypsin h trypsin homology 36.7%; larity 40.5%; Conservative             LLLPLLMAQLWAAE               LLLPLQILLLSUALET DQSWYLTAAHCGNKPL :                 NERWYLTAAHCGNKEV DLMILKLARPVVPGPR                 DLMILKLARPVVPGPR                 SPRECEVFYPGVATINN               SPRECEVFYPGVATINN               SPQDCTKVYKDLLENS PAVYTQICKYMSWINK                 SPQDCTKVYKDLLENS PAVYTQICKYMSWINK               SPGDYTQVCKFTKWIND	CCE precurs stratum corn stens (man) #sequence, #sequence, #sequence, A53968; MU A53968; MU RA A53968; MU CY CB:L33404; GB:L33404; GCCE GDB:377730	244 244 256 256 261 261 265 265
ALET AKPL AKPL AKPL AKPL AKPL AKPL AKPL AKPL	neu rev 156, B	222424444444444444444444444444444444444
BY  S S49; DB  NO. 1.7e  NO. 1.7e  DANTRLDPEAY  STIGNERAGE  STIGNE	NMENTS  tryptic enzyme  7-Jul-1995 #text_ , A.; Wallbrandt, terization of str 5; PMID:8034709  14; PIDN:AAC37551	\$12764 \$39048 \$31136 \$1136 \$1436 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$144284 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$14428 \$
2; Length 253; 40; 97; Inde1s 14; Gaps 4; 1	change 22-Jun-1999 P.; Carlatein, A.; Egelrud, atum corneum chymotryptic enz	trypsin (EC 3.4.21 trypsin (EC 3.4.21 trissue kallikrein 78 nerve growth fa tissue kallikrein trypsin (EC 3.4.21 tonin (EC 3.4.21 tissue kallikrein tissue kallikrein

```
A;Cross references: GB:M11589; NID:g164094; PIDN:AAA30899.1; PID:g164095 C;Superfamily: trypsin; trypsin homology C;Keywords: hydrolase; pancreas; protein digestion; serine proteinase; zymogen F;1-15/Domain: signal sequence #status predicted <APT> F;16-23/Domain: activation peptide #status predicted <APT> F;24-24/Product: trypsin, anionic #status predicted <ENZ> F;24-23/Domain: trypsin homology <TRY> F;24-23/Domain: trypsin homology <TRY> F;30-160,48-64,132-233,139-206,771-185/Disulfide bonds: #status predicted F;33,107,200/Active site: His, Asp, Ser #status predicted F;63,107,200/Active site: Calcium (Glu, Asn, Val, Glu) #status predicted F;63,107,200/Active site: Calcium (Glu, Asn, Val, Glu) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Pinsky, S.D.; LaForge, K.S.; Scheele, G.
Wol. Cell. Biol. 5, 2669-2676, 1985
A;Title: Differential regulation of trypsinogen mRNA translation: full-length mRNA seque
A;Reference number: A26273; MUID:86284628; PMID:3841794
A;Accession: A26273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       trypsin (EC 3.4.21.4) precursor, anionic - dog
N;Alternate names: cationic trypsinogen
C;Species: Canis lupus familiaris (dog)
C;Date: 30-Sep-1987 #sequence_revision 30-Sep-1987 #text_change 18-Jun-1999
C;Accession: A26273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:D30785; NID:g1648847; PIDN:BAA06451.1; PID:g1020091
C;Superfamily: trypsin; trypsin homology
F;33-252/Domain: trypsin homology <TRY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 21-Jul-2000 C;Accession: I5659 R;Chen, Z. L.; Yoshida, S.; Kato, K.; Momota, Y.; Suzuki, J.; Tanaka, T.; Ito, J. Neurosci. 15, 5088-5097, 1995
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Title: Expression and activity-dependent changes of a novel limbic-serine protease ger A; Reference number: I56559; MUID:95348817; PMID:7623137
                                                    B
                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Residues: 1-247 < PIN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Residues: 1-260 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: I56559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 106;
                                                                                                                                                                                                                       Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                           107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67 WVLTAAHCKKQKYSVRLGDHSLQSRDQPEQEIQVAQSIQHPCYN-NSNP----EDHSHDI 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ដូ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 LIPILMAQIWAAEAALIPQNDTRIDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQS
                                                                                                                         23
83 TAMHCGNKPLWARVGDDHLLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                          Similarity
                                                       LILAFIGAAVAT -- PTDDD--DKIVGGYTCEENSVPYQVSLNAGYHF-CGGSLISDQWVV 59
                                                                                                                     LLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSPHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YTKICRYTTWIKKIM 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YTOICKYMSWINKVI 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NKCÉRAYPGKITEGMVCAGSSNGADTCQGDSGGPLVCDGMLQGITSWGSDPCGKPEKPGV 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAV 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MLIRLQNSANLGDKVKPVQLANLCPKVGQKCIISGWGTVTSPQENFPNTLNCAEVKIYSQ 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MILKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSP 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WVLTAAHCGNKPLWARVGDDHLLLL-QGEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDL 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ILLLEMGAWA--GLTRAQGSKILE----GRECIPHSQPWQAALFQGERLICGGVLVGDR
                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34.3%;
                                                                                                                                                                                                                       33.8%; Score 506; DB 1; Length 247; 41.8%; Pred. No. 9.3e-37;
                                                                                                                                                                                           41; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 513; DB 2;
Pred. No. 2.4e-37;
                                                                                                                                                                                       92; Indels 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 260,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nighi
```

```
Rile Huerou, I.; Wicker, C.; Guilloteau, P.; Toullec, R.; Puigserver, A. Eur. J. Biochem. 193, 767-773, 1990
A;Tille: Igolation and nucleotide sequence of cDNA clone for bovine pancreatic anionic A;Reference number: $13813; MUID:91065383; PMID:1701147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Bos primigenius taurus (cattle)
C;Date: 02-Dec-1993 #sequence_revision 03-Aug-1995 #text_change 22-Jun-1999
C;Accession: $13813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ş
                                                                                                   გ
                                                                                                                                            Ś
                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                          당
                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:X54703; NID:g829; PIDN:CAA38513.1; PID:g830 C;Superfamily: trypsin; trypsin homology C;Keywords: hydrolase; protein digestion; serine proteinase F;24-239/Domain: trypsin homology <TRY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-247 < HUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  trypsin (EC 3.4.21.4) - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S13813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;63,107,200/Active site: His, Asp, Ser #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: $13813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             202 EVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142 KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
230
                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261 QICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 EASYPGOITENMICAGFLEGGKÓSCÓGÓSGGÉVVCNGELÓGIVSWG-YGCAQKNKPGVYT 230
                                                                                                                                                                                                                                                     141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      231 KVCNFVDWIQSTIAAN 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   105;
                                                                                                                                                                                                                                                                                                          59 VSAAHCYQYHIQVRLGEYNIDVLEGGEQFIDASKIIRHPKYSSW-----TLDNDILL 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 PLIMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                  CBVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVY 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLSSPAVLNARVATISLPRACAAPGTQCLISGWGNTLSSGTNYPELLQCLDAPILTQAQC 171
TKVCNYVDWIQETIAAN 246
                                                 TOICKYMSWINKVIRSN 276
                                                                                                   CEASYPGQITMMICAGFLEGGKDSCQGDSGGPVACNGQDQGIVSWG-YGCAQKGKPGVY 229
                                                                                                                                                                                                      IKLSTPAVINARVSTLLLPSACASAGTECLISGWGNTLSSGVNYPDLLQCLVAPLLSHAD
                                                                                                                                                                                                                                                                                                                                                      LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                                                                                                                                                                                                                                                PLLILAPVGAAVAFPSDDDDKI----VGGYTCAENSVPYQVSLNAGYHF-CGGSLINDQWV 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33.8%; Score 505.5; 40.9%; Pred. No. 1e-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 1e-36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2; Length 247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                                         170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
```

A;Title: Sequence organisation and transcriptional regulation A;Reference number: A93646; MUID:87066713; PMID:3641189 A;Accession: B25528

elastase

A; Molecule type: mRNA

trypsin (EC 3.4.21.4) precursor - mouse C;Species: Mus musculus (house mouse) C;Decies: Mus musculus (house mouse) C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 22-Jun-1999 C;Accession: B25228 R;Stevenson, B.J.; Hagenbuechle, O.; Wellauer, P.K. Nucleic Acids Res. 14, 8307-8330, 1986

B25528

```
d. Mol. Biol. 98, 693-717, 1975

A.Title: The refined crystal Structure of bovine beta-trypsin at 1.8 angstrom resolution A;Title: The refined crystal Structure of bovine beta-trypsin at 1.8 angstrom resolution A;Reference number: A92954; MUD:76072097; PMID:512

A;Contents: annotation; X-ray crystallography; binding sites for calcium, substrate, and C;Comment: Trypsinogen is synthesized in the acinar cells of the pancreas.
C;Comment: Autocatalytic cleavage after Lys-6 leads to beta-trypsin by releasing a termi specudotrypsin. A cleavage may also occur after Arg-105.
C;Superfamily: trypsin; trypsin homology
C;Keywords: hydrolase; pancreas; protein digestion; serine proteinase; zymogen F;1-229/Product: trypsinogen #status experimental <ZYM-F;1-6/Domain: activation peptide #status experimental <APT>
F;7-222/Domain: trypsin homology <TRY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Bos primigenius taurus (cattle)
C;Date: 24-Apx-1984 #sequence revision 28-Feb-1986 #text_change 18-Jul-1997
C;Accession: A90164; A00946; 5089774
R;Mikes, O.; Holeysovsky, V.; Tomasek, V.; Sorm, F.
Blochem. Biophys. Res. Commun. 24, 346-352, 1966
A;Title: Covalent structure of bovine trypsinogen. The position of the remaining A;Reference number: A90164; MUID:67168848; PMID:5967094
A;Accession: A90164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Superfamily: trypsin; trypsin homology
C;Keywords: calcium binding; hydrolass; protein digestion; serine proteinase
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-246/Product: trypsin #status predicted <MAT>
F;24-239/Domain: trypsin homology <TRY>
F;30-160,48-64,132-233,139-206,171-185/Disulfide bonds: #status predicted
F;63,107,200/Active site: His, Asp, Ser #status predicted
F;75,77,80,85/Binding site: calcium (Glu, Asn, Val, Glu) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                           A; Contents: annotation; revisions
A; Note: the sequence agrees with that shown
R; Bode, W.; Schwager, P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Reference number: A93755
A;Contents: annotation; revisions
R;Titani, K.; Ericsson, L.H.; Neurath, H.; Walsh, K.A.
Biochemistry 14, 1358-1366, 1975
A;Title: Amino acid sequence of dogfish trypsin.
A;Reference number: A00950; MUID:75146445; PMID:1092332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: protein
A;Residues: 1-57,'Q',59-67,'Q',69-150,'N',152-176,'N',178-229 <MIK>
R;Hartley, B.S.
Philos. Trans. R. Soc. Lond. B257, 77-87, 1970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   trypsin (EC 3.4.21.4) precursor - bovine N; Contains: trypsinogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               먉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 1-246 <STE>
A;Cross-references: GB:X04574; NID:g54918; PIDN:CAA28243.1; PID:g54919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRBOTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23 LLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KVCNYVDWIQNTIADN 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SÄAHCYKYRIQVRLGEHNINVLEGNEQFVDSAKIIRHPNYNSW-----TLDNDIMLI 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EASYPGDITNNMICVGFLEGGKDSCQGDSCGPVVCNGELQGIVSWG-YGCAQPDAPGVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KLASPYTLNARVASVPLPSSCAPAGTQCLISGWGNTLSNGVNNPDLLQCVDAPVLPQADC 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LILALVGAAVA--FPVDDD--DKIVGGYTCRESSVPYQVSDNAGYHF-CGGSLINDQWVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33.0%;
41.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. le-35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 494; DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95; Indels 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amides
```

```
C;Superfamily: trypsin; trypsin homology (Keywords: hydrolase; pancreas; protein digestion; serine proteinase; zymogen F;1-15/Domain: signal sequence #status predicted <SIG>F;16-23/Domain: activation peptide #status predicted <APT>F;24-246/Product: trypsin II #status predicted <ENZ>F;24-246/Product: trypsin II #status predicted <ENZ>F;24-246/Producted <ENZ>F;24-246/Producted <ENZ>F;24-246/Producted <ENZ>F;24-246/Producted <ENZ>F;24-246/Producted <ENZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: DNA
A;Residues: 1-246 <CRA>
A;Residues: 1-256 <CRA>
R;MacDonald, R.U.; Stary, S.J.; Swift, G.H.
J. Biol, Chem. 257, 9724-9732, 1982
A;Title: Two similar but nonallelic rat pancreatic trypsinogens. Nucleotide sequences
A;Reference number: A00948; MUID:82265624; PMID:6896710
A;Accession: A00949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    trypsin (EC 3.4.21.4) II precursor - rat
N,Alternate names: trypsinogen II
C;Species: Rattus norregicus (Norway rat)
C;Date: 05-Apr-1983 #sequence_revision 30-Sep-1987 #text_change 18-Jul-1997
C;Accession: A22657, A00949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;7-131,132-229/Product: alpha-trypsin #status experimental KPT>
F;6-7/Cleavage site: Lys-Ile (enteropeptidase) #status experimental
F;13-143,31-47,115-216,122-189,154-168,179-203/Disulfide bonds: #status experimental
F;46,90,183/Active site: His, Asp, Ser #status experimental
F;58,60,63,68/Binding site: calcium (Glu, Asn, Val, Glu) #status experimental
F;5131-132/Cleavage site: Lys-Ser (autolytic) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Comment: The trypsin II mRNA is present C;Genetics:
A;Introns: 14/1, 67/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Craik, C.S.; Choo, Q.L.; Swift, G.H.; Quinto, C.; MacDonald, R.J.; Rutter, W.J. Biol. Chem. 259, 14255-14264, 1984
A;Title: Structure of two related rat pancreatic trypsin genes.
A;Reference number: A22657; MUID:85054880; PMID:6094547
A;Accession: A22657
멼
                                                                               Ś
                                                                                                                                                                            끊
                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;24-239/Domain: trypsin homology <TRY>
F;30-160,48-64,132-233,139-206,171-185/Disulfide bonds: #status predicted
F;30-160,7200/Active site: His, Asp. Ser #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 9-246 < MAC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F;75,77,80,85/Binding site: calcium (Glu, Asn, Val, Glu) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                              Matches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 GDŚGGPVVCSGKLQGIVŚWG-SGCAQKNKPGVYTKVCNYVŚWIKQTIAŚN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108 QLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGD 167
52
                                                                                                                                                                                                                                                      15 RALAKILPILMAQLWAABAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGV 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 GYTCGANTVPYQVSLNSGYHF-CGGSLINSQWVVSAAHCXKSGIQVRLGEDNINVVDGUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49 GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLLQG-E 107
                                                                          75 LVDQSWVLTAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96:
                                                                                                                                                                       N
                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
LINDQWVVSAAHCYKSRIQVRLGEHNINVLEGDEQFINAAKIIKHPNF------DRKT
                                                                                                                                                                       RAL-----LFLALVGAAVA--FPVDDD--DKIVGGYTCQENSVPYQVSLNSGYHF-CGGS 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QCLISGWGNTKSSGTSYPDVLKCLKAPILSDSSCKSAYPGQITSNMFCAGYLEGGKDSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAG-LDRGQDPCQ 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QFISASKSIVHPSYNS-----NTLNNDIMLIKLKSAASLNSRVASISLPTSCASAGT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32.8%; Score 491; DB 1; 41.7%; Pred. No. 1.8e-35;
                                                                                                                                                                                                                                                                                                                                                                                        32.7%;
                                                                                                                                                                                                                                                                                                                                              43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    Score 488.5; DB 1;
Pred. No. 3.1e-35;
                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in much lower quantities than the trypsin I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84;
                                                                                                                                                                                                                                                                                                                                              95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 229;
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 12;
                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bonds: #status experimental
                                                                                                                                                                                                                                                                                                                                          21;
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68
                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ဟ
```

```
trypsin (BC 3.4.21.4) precursor - pig (tentative sequence) N;Contains: trypsinogen C;Species: Sus scrofa domestica (domestic pig) C;Datte: 24-Apr-1984 #sequence_revision 24-Apr-1984 #text_change C;Accession: A90641; A30368; A00947 R;Charles, M.; Rovery, M.; Guidoni, A.; Desnuelle, P. Biochim. Biophys. Acta 69, 115-129, 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:X15679; NID:g56813; PIDN:CAA33718.1; PID:g56814
C;Superfamily: trypsin; trypsin homology
C;Superfamily: trypsin; trypsin homology
C;Keywords: calcium binding; hydrolase; protein digestion; serine proteinas
F;115/Domain: signal sequence #status predicted <SIG-
F;16-23/Domain: activation peptide #status predicted <APT-
F;24-24/Product: trypsin IV #status predicted <MAT-
F;24-24/Product: trypsin homology <TRY-
F;30-161,49-65,133-234,140-207,172-186/Disulfide bonds: #status predicted
F;64,108,201/Active site: His, Asp, Ser #status predicted
F;64,78,81,86/Binding site: calcium (Glu, Asn, Val, Glu) #status predicted
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Luetcke, H.; Rausch, U.; Vasiloudes, P.; Scheele, Nucleic Acids Res. 17, 6736, 1989
A;Title: A fourth trypsinogen (P23) in the rat panc)
A;Reference number: S05494; MUID:89386010; PMID:2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 07-Jun-1990
C;Accession: S05494
R;Luetcke, H.; Rauso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              trypsin (EC 3.4.21.4) IV precursor - rat
N;Alternate names: 23K protein; trypsinogen IV precursor
C;Species: Rattus norvegicus (Norway rat)
                                                                                                                                                                      TRPGTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-247 < LUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: S05494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ם
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-Jun-1990 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                         171
                                                                                                                                                                                                                                                                                                        259
                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                  111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                SCKKSYPGQITSNMFCLGFLEGGKDSCDGDSGGPVVCNGEIQGIVSWGSV-CAMRGKPGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPK 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQV$LFNGL$FHCAGVLVDQSW
                                                                                                                                                                                                                                                                                                        YTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                         ECEVFYPGVVINNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAV 258
                                                                                                                                                                                                                                                                                                                                                                                                                                          LIKLKSPAVINSQVSTVSLPRSCASTDAQCIVSGWGNTVSIGGKYPALLQCIBAPVISAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VLTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLM 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ISIRFAFLGAAVA--LPVNDD--DKIVGGYTCPKHLVPYQVSLHDGISHQCGGSLISDQW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PDNPGVYTKVĆNYVDWIQDTIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TILSPKECEVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FLPQADCEASYPGKITDNMYCVGFLEGGKDSCQGDSGGPVVCNGELQGIVSWG-YGCAL 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LNNDIMLIKLSSPVKLNARVATVALPSSCAPAGTQCLISGWGNTLSSGVNEPDLLQCLDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44;
                                                                                                                                                                                                                                                                                                           276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 486.5; DB 2;
Pred. No. 4.7e-35;
4; Mismatches 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-Jun-1990 #text_change 22-Jun-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rat pancreas
PMID:2780302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G.A.; Kern,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                induced by CCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              serine proteinase; zymogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58
                                                                                                                                                                                                                                                                                                                                                  229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      163
```

```
A; Molecule type: DNA
A; Residues: 1-246 < CRA>
A; CRA>
A; Cross-references: GB: J00778; NID: g206507; PIDN: AAA98518.1; PID: g206508
A; Note: the authors translated the codon ATC for residue 6 as Leu and GAC
A; MacDonald, R.J.; Stary, S.J.; Swift, G.H.
J. Biol. Chem. 257, 9724-9732; 1982
A; Title: Two similar but nonallelic rat pancreatic trypsinogens. Nucleotic A; Reference number: A00948; MUID: 82265624; PMID: 6896710
A; Accession: A00948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NiAlternate names: trypsinogen I
C:Species: Rattus norvegicus (Norway rat)
C;Date: 17-Dec-1982 #sequence_revision 17-Dec-1982 #text_change 24-Sep-1999
C;Accession: B22657, A00948
R;Craik, C.S.; Choo, Q.L.; Swift, G.H.; Quinto, C.; MacDonald, R.J.; Rutter, J. Biol. Chem. 259, 14255-14264, 1984
A;Title: Structure of two related rat pancreatic trypsin genes.
A;Reference number: A22657; MUID:85054880; PMID:6094547
A;Accession: B22657
A;Introns: 14/1; 67/2; 152/1; 197/3
C;Superfamily: trypsin; trypsin homology
C;Keywords: hydrolase; pancreas; protein digestion; serine
F;1-15/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
TRRT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Note: at position 20, Ile and Val occur alternatively C;Superfamily: trypsin; trypsin homology C;Superfamily: trypsin; trypsin homology C;Keywords: hydrolase; pancreas; polymorphism; protein digestion; F;1-231/Product: trypsinogen #status experimental <ZYM>F;1-8/Domain: activation peptide #status experimental <APT>F;9-231/Product: trypsin #status experimental <MAT>F;9-231/Product: trypsin homology <TRY>F;9-224/Domain: trypsin homology <TRY>F;15-145,33-49,117-218,124-191,156-170,181-205/Disulfide bonds: #sF;48,92,185/Active site: His, Asp, Ser #status predicted F;48,92,185/Active site: calcium (Glu, Asn, Val, Glu) #status products for the product of the pro
                                                                                                                                                                    C; Genetics:
                                                                                                                                                                                                     A;Cross-references: GB;J00778; NID:g206507; PIDN:AAA98518.1;
                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 1-246 < MAC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                trypsin (EC 3.4.21.4) I precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Determination of the amino acid se
A;Reference number: A90368; MUID:73258692;
A;Accession: A90368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: protein
A; Residues: 1-10 < CHA>
R; Residues: 1-10, < CHA>
R; Hermodeon, M.A.; Ericeson,
Biochemistry 12, 3146-3153, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Su le trypsinogene
A;Reference number: A90641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: A90641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49 GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQG-E 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GDSGGPVÝCNGQLQGIVSWG-YGCAQKNKPGVÝTKVĆNÝVNWIQQTIAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ECLISGRITHS GSSYPSLLQCLKAPVLSDSSCKSSYPGQITGNMICVGFLEGGKDSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SDSGGPLVCDETLOGILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAG-LDRGQDPCQ 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OFINAAKI ITHPNFN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GYTCAANSIPYQVSLNSGSHF-CGGSLINSQWVVSAAHCYKSRIQVRLGEHNIDVLEGNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L.H.; Neurath,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 483; DB 1;
Pred. No. 8.8e-35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     trypsine de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -- GNTLDNDIMLIKLSSPATLNSRVATVSLPRSCAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence of porcine
2; PMID:4738933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    H.; Walsh, K.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 23:
                                                                                                                                                                                                 PID:g206508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      trypsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #status
                                                                                                                                                                                                                                                                                                                                                                                                       Nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      À
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequenator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proteinase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ę.
```

proteinase; zymogen

```
A:Molecule type: mRNA
A:Molecule type: mRNA
A:Residues: 1-247 <FIRS-
A;Cross-references: GB:M16624; NID:g206498; PIDN:AAA41985.1; PID:g206499
A;Cross-references: GB:M16624; NID:g206498; Protein digestion; serine proteinase
C;Superfamily: trypsin; trypsin homology
C:Superfamily: trypsin; hydrolase; protein digestion; serine proteinase
C:Keywords: calcium binding; hydrolase; protein digestion; serine proteinase
F;25-240/Domain: trypsin homology <TRY>
F;31-161,49-65,133-234,140-207,172-186/Disulfide bonds: #status predicted
F;64,108,201/Active site: His, Asp, Ser #status predicted
F;64,108,201/Active site: Calcium (Glu, Asn, Val, Glu) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        trypsin (EC 3.4.21.4) precursor, cationic - rat C,Speciles: Rattus norvegicus (Norway rat) C;Date: 30.-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 22-Jun-1999 C;Access.on: A27547 R;Fletcher, T.S.; Alhadeff, M., Craik, C.S.; Largman, C. Biochem.stry 26, 3081-3086, 1987 A;Fille: ISolation and characterization of a cDNA encoding rat dationic trypsinogen. A;Reference number: A27547; MUID:87271609; PMID:3607011 A;Accession: A27547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;16-23/Domain: activation peptide #status predicted <APT>
F;24-246/Product: trypsin I #status predicted <ENZ>
F;24-239/Domain: trypsin homology <TRY>
F;30-160,48-64,132-233,139-206,171-185/Disulfide bonds: #status predicted F;63,107,200/Active site: His, Asp, Ser #status predicted F;75,77,80,85/Binding site: calcium (Glu, Asn, Val, Glu) #status predicted
      믕
                                                          Ş
                                                                                                                           묽
                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                      D
                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
A27547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  끍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
173 KSSYPGKITSNMFCLGFLEGGKDSCQGDSGGPVVCNGQLQGVVSWG-YGCAQKGKPGVYT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101;
                                                                                                                                                                                   142 KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  231 KVCNFVGWIQDTIAAN 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261 QICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           142 KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                 61 SAAHCYKSRIQVRLGEHNIDVVEGGEQFIDAAKIIRHPSYN-----ANTFDNDIMLI
                                                                                                                                                                                                                                                                                                        83 TAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                             23 LLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVL 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83 TAAHCGNKPLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23 LLMAQLWAAEAALLPQNDTRLDPEAYGAPÇARGSQPWQVSLFNGLSFHCAGVLVDQSWVL 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ហ
                                                                                                                                                                                                                                                                                                                                                                      5 IFLAFIGAAVALPLODDDDKI----VGGYYCQKNSLPYQVSLNAGYHF-CGGSLINSQWVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h 31,9%; Score 477.5; DB 2
Similarity 37,5%; Pred. No. 2.9e-34;
96; Conservative 47; Mismatches 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                             EVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAAYPGEITSSMICVGFLEGGKDSCQGDSGGPVVCNGQLQGIVSWG-YGCALPDNPGVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EVEXPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLSSPVKLNARVAPVALPSACAPAGTÓCLISGWGNTLSNGVNNPDLLQCVDAPVLSQADC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAAHCYKSRIQVRLGEHNINVLEGDEQFINAAKIIKHPNYSSW------TINNDIMLI 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LILALVGAAVAFPLEDDDKIVG----GYTCPEHSVPYQVSLNSGYHF-CGGSLINDQWVV S9
                                                                                                                     KLNSPATLNSRVSTVSLPRSCGSSGTKCLVSGWGNTLSSGTNYPSLLQCLDAPVLSDSSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32.2%; Score 482; DB 1; 39.5%; Pred. No. 1.2e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2; Length 247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
```

```
A;Molecule type: protein

A;Residues: 16-39,'X',41-42,'XXXX',47-49 <KIM>
A;Residues: 16-39,'X',41-42,'XXXX',47-49 <KIM>
A;Roivumen, E.; Huhtala, M.L.; Stenman, U.H.

J. Biol. Chem. 264, 14095-14099, 1989

A;Title: Human ovarian tumor-associated trypsin. Its purification and characterization

A;Reference number: A43988; MUID:89340515; PMID:2503510
                                                                                                                                                                                                                                                        A;Cross-references: GB:M27602; NID:g521217; PIDN:AAA61232.1; PID:g521218 R;Kimland, M.; Russick, C.; Marks, W.H.; Borgstroem, A. Clin. Chim. Acta 184, 31-46, 1989 A;Title: Immunoreactive anionic and cationic trypsin in human serum. A;Reference number: A61066; MUID:90091010; PMID:2598466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene 41, 305-310, 1986

A;Title: Cloning, Characterization and nucleotide sequences of two cDNAs encoding huma A;Reference number: A91544; MUID:86221712; PMID:3011602

A;Accession: B25852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                trypsin (EC 3.4.21.4) II precursor [validated] - human N;Alternate names: trypsin 2; trypsin, anionic; trypsinogen II C;Species: Homo sapiens (man) C;Date: 03-Mar-1994 #sequence revision 03-Mar-1994 #text_change 08-Dec-2000 C;Accession: B25852; A61066; B43988 R;Emi_M.; Nakamura, Y.; Ogawa, M.; Yamamoto, T.; Nishide, T.; Mori, T.; Mat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C:Superfamily: trypsin; trypsin homology C:Reywords: hydrolase; serine proteinase F:1-13/Domain: signal sequence #status predicted <8IG>F:14-242/Product: trypsin #status predicted <MAT>F:21-235/Domain: trypsin homology <TRY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
S49489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Genicot, S.; Rentier-Delrue, F.; Edwards, D.; van Beeumen, J.; Dodson, G.; Gerday, C submitted to the EMBL Data Library, October 1994
A;Description: Trypsin and trypsinogen from an antarctic fish: molecular basis of cold
                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-247 < EMI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-242 < GE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         trypsin (EC 3.4.21.4) precursor - Paranotothenia magellanica C;Species: Paranotothenia magellanica C;Decies: Paranotothenia magellanica C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 22-Jun-1999 C;Accession: 849489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
A;Accession: B43988
                                                                                                                                                                                                                                  A; Accession: A61066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:X82223; NID:g559507; PIDN:CAA57701.1; PID:g559508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: S49489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Reference number: S49489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                232 KVCNYVNWIQQTVAAN 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     186 QGGKDSCQGDSGGPVVCNGELQGVVSWG-YGCAERDHPGVYAKVCLFNDWL 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   219 DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSWI 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160 YRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAG-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101 LLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLP 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261 QICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75 IRVIEGKEGFISSSRVIRHENYSS-----YNIDNDIMLIKLSKPATLNQYVQAVALE 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41 TRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDH 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1-242 <GEN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TEEDKIVGGKECSPYSQPHQVSLNSGYHF-CGGSLVNENWVVSAAHCYKSRVEVRMGEHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SSCAPAGIMCTVSGWGSTQSSSADGNK-LQCLNIPILSDRDCDNSYPGMITDAMFCAGYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y.; Ogawa, M.; Yamamoto, T.; Nishide, T.; Mori, T.; Matsubara, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 473.5; DB 2;
Pred. No. 6.3e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 242;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           218
```

```
A;Experimental source: clone 2-P29
C;Superiamily: trypsin; trypsin homology
C;Superiamily: trypsin; trypsin homology
C;Keywords: hydrodase; pancreas; protein digestion; serine
F;1-16/Domain: signal sequence #status predicted <SIG>
F;17-25/Domain: activation peptide #status predicted <APT>
F;26-240/Product: trypsin II #status predicted <APT>
F;26-241/Domain: trypsin homology <TRY>
F;26-241/Domain: trypsin homology <TRY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             trypsin (EC 3.4.21.4) II precursor, pancreatic (clone 2-P29) - chicken N,Alternate names: trypsinogen II C;Species: Gallus gallus (chicken) C;Date: 23-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 22-Jun-1999 C;Accession: 955066; S72347
C;Accession: 955066; S72347
C;Mang, K.; Gan, L.; Lee, I.; Hood, L.
Blochem. J. 307, 471-479, 1995
A,Title: Isolation and characterization of the chicken trypsinogen gene family.
A,Reference number: 955065; MUID:95251611; PMID:7733885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;24-246/Product: trypsin II #status predicted <ENZ>
F;24-239/Domain: trypsin homology <TRX>
F;30-160,48-64,171-185,196-220/Disulfide bonds: #status predicted
F;30,107,200/Active site: His, Asp, Ser #status predicted
F;75,77,80,85/Binding site: calcium (Glu, Asn, Val, Glu) #status |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Superfamily: trypsin; trypsin homology
C;Keywords: hydrolase; pancreas; protein digestion; serine proteinase; zymogen
F;1-15/Domain: signal sequence #status predicted <SIG>
F;16-246/Product: trypsinggen II #status experimental <ZYM>
F;16-23/Domain: activation peptide #status experimental <APT>
                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-248 <WANI>
A;Residues: 1-248 <WANI>
A;Residues: 1-248 <WANI>
A;Residues: 1-248 <WANI>
A;Residues: EMBL:U15157; NID:g603906; PIDN:AAA79914.1; PID:g603907
A;Experimental source: clone 2-P29
A;Experimental source: clone 2-P29
A;Aolecule: 572347
A;Molecule type: DNA
A;Residues: 1-248 <WANI>
A;Cross-references: EMBL:U15157; NID:g603906; PIDN:AAA79914.1; PID:g603907
A;Cross-references: EMBL:U15157; NID:g603906; PIDN:AAA79914.1; PID:g603907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Experimental source: mucinous ovarian tumor cyst fluid C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: protein
A; Residues: 16-49 < KOI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
S55066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Note: the human genome contains at least ten trypsin genes or pseudogenes, at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Map position: 7q35-7q35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GDB:335289; OMIM:601564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Gene: GDB: PRSS2; TRY2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: S55066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23 LUMNQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KVYNYVDWIKDTIAAN 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KLSSPAVINSRVSAISLPTAPPAAGTESLISGWGNTLSSGADYPDELQCLDAPVLSQAEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAGHCYKSRIQVRLGEHNIEVLEGNEQFINAAKIIRHPKYNS------RTLDNDILLI 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAHCGNKPLWARVGDDHLLJLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EASYPGKITNNMFCVGFLEGGKDSCQGDSGGPVVSNGELQGIVSWG-YGCAQKNRPGVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LLLILTFVAAAVAAPFDDD--DKIVGGYICEENSVPYQVSLNSGYHF-CGGSLISEQWVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 470; DB 1; Length 247; Pred. No. 1.3e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches 102; Indels 14;
                                                                                                                                                                             serine proteinase; zymogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               least
```

```
RESULT 15
S31779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                片
                                                                                                                               밁
                                                                                                                                                             Ś
                                                                                                                                                                                                밁
                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                               밁
                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                           F;55,99,192/Active site: His, Asp, Ser #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                              rocar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       110 IMLIKLASAVEYSADIQPIALPSSCAKAGTECLISGWGNTLSNGYNYPELLQCLNAPILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257 AVYTQICKYMSWINKVI 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         170 DOBCQEAYPGDITSNMICVGFLEGGKDSCQGDSGGPVVCNGELQGIVSWGI-GCALKGYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229 GVYTKVCNYVDWIQETI 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198 EKECEVFYPGVVTNNMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138 LMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILS 197
                                                                                                                               112 NSYVSTVALPSSCASSGTRCLVSGWGNLSGSSSNYPDTLRCLDLPILSSSSCNSAYPGQI
                                                                                                                                                               150 GPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEVFYPGVV 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         58 QWVLSAAHCYKSRIQVRLGEYNIDVQEDSEVVRSSSVIIRHPKYSS-----ITLNND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79 SWYLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVV-HPKYHQGSGPILPRRTDEHD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19 KILPILMAQIWAAEAALIPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQ
                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99;
                                                                                                                                                                                                                              91 PLWARVGDDHLLLLQG-EQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVP 149
                                                                                                                                                                                                                                                                                           31 REAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNK 90
                                                                                                                                                                                                                                                                                                                                93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 KFLFLILSCLGAAVAFPGGADDDKI --- VGGYTCPEHSVPYQVSLNSGYHF-CGGSLINS
                                                                                                                                                                                                                                                                                                                                               Similarity
ISSTMSSN 238
                               INKVIRSN 276
                                                                TSNMFCAGFMEGGKDSCQGDSGGPVVCNGQLQGVVSWG-YGCAQRNKPGVYTKVCNYRSW
                                                                                              TNIMICAG-LDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQICKYMSW
                                                                                                                                                                                              RIQVRLGEHNIAVNEGTEQFIDSVKVIMHÞSYNS-----RNLDNDIMLIKLSKPASL 111
                                                                                                                                                                                                                                                             AFAAPIDDEDDKI----VGGYECRKNSASYQASLQSGYHF-CGGSLISSTWVVSAAHCYKS 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31.4%; Score 469.5; DB 2
38.5%; Pred. No. 1.4e-33;
                                                                                                                                                                                                                                                                                                                                            31.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52;
                                                                                                                                                                                                                                                                                                                              46;
                                                                                                                                                                                                                                                                                                                            Score 468.5; DB 2
Pred. No. 1.7e-33;
6; Mismatches 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           [77,188-212/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                            DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                              94;
                                                                                                                                                                                                                                                                                                                                                            Length 238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 248;
                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and cationic variants of to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                              15:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                               171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78
                                                                                                                                                                                                                                                                                                                              6
```

Search completed: November 25, 2003, 09:09:13
Job time : 28 secs

```
Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                    100.0
100.0
100.0
96.2
37.7
37.7
37.7
37.7
37.7
37.7
                                                                                                                                                                                                                                                                                                                                                                         100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1496
1 MRAPHLHLSAASGARALAKL.....AVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      November 25, 2003, 09:08:46 ; Search time 45 Seconds (without alignments) 1131.252 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          673684 seqs, 184443283 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-021-368-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications AA:*
|: /cgn2_6/ptodata/1/pubpaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maximum Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compug
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length DB ID
9 US-09-888-815-87
12 US-10-361-822-95
12 US-10-362-88-52
14 US-10-021-368-15
15 US-10-097-340-167
16 US-09-946-374-194
2 US-10-015-387A-194
2 US-10-015-392A-194
2 US-10-017-368A-194
2 US-10-017-368A-194
2 US-10-017-368A-194
2 US-10-017-368A-194
2 US-10-017-368A-194
2 US-10-017-867A-194
2 US-10-017-867A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Compugen Ltd.
        Sequence 87, Appl
Sequence 52, Appl
Sequence 52, Appl
Sequence 167, Appl
Sequence 167, Appl
Sequence 114, Appl
Sequence 194, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
```

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	26
564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564	564
			•					•			•									•	•	•		•	٠	•	•	37.7	•
248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
15	15	15	<u>Д</u>	15	15	15	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	7
-10-006-117A-	-10-	-012-	-10-015-	-10-015-393A-	-006-818A-	-10~006-856A-		-10-015-519A-	-10-015-394A-	-10-013-915A-	-10-015-389A-	-10-007-236A-	-10-015-385A-	US-10-012-753A-194	-10-015-715A-	-10-015-480A-	-10-015-388A-	-10-013-906A-	-237A-	-10-015-671A	-10-015-653A	-10-015	-10-013-912A	-10-013-911A	-10-013-909A-	US-10-012-754A-194	-10-012-752A-	-137A-1	-7-017-71
_	Œ	Sequence 194		Ф	⊕ H	æ	Sequence 194	ø				ø		Sequence 194		æ			Sequence 194		0	ø	e u	e	Sequence 194	æ	0	æ	sequence 13
•	•	•	٠	•	•	•	•	•	-	•	-	~	•	•	•	•	-	•	•	•	•	~	•	•	•	•	•	4, App	٠

## ALIGNMENTS

RESULT 1 US-09-888-615-87

```
Sequence 87, Application US/09888615
Patent NO. US20020064856A1
Patent NO. US20020064856A1

GENERAL INFORMATION:
APPLICANT: PLOWMAN, GREGORY
APPLICANT: CARNEPEEL, SEAN
APPLICANT: CHARYDCZAK, GLEN
APPLICANT: CHARYDCZAK, GLEN
APPLICANT: WANNING, GERARD
APPLICANT: WANNING, GERARD
APPLICANT: SUDARSANAM, SUCHA
STITLE OF INVENTION: NOVEL PROTEASES
FILE REFERENCE: 038602/1214
CURRENT APPLICATION NUMBER: US/09/888,615
CURRENT FILING DATE: 2001-06-26
S
                                                      å
                                                                                                Ş
                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT CRGANISM: Homo sapiens US-09-888-615-87
                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 150
SOFTWARE: PatentIn Ver. 2.
SEQ ID NO 87
LENGTH: 276
                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/214,047
PRIOR FILING DATE: 2000-06-26
                                                                                                                                                                                                                                                    y Match 100.0%; Score 1496; DB 9; Length 276; Local Similarity 100.0%; Pred. No. 5.7e-141; nes 276; Conservative 0; Mismatches 0; Indels 0
121 YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                      61
                                                                                     61 VSLENGLSFHCAGVIVDQSWVLTAAHCGNKPLWARVGDDHLLILQGEQLRRTTRSVVHPK 120
                                                                                                                                                                             1 MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ 60
                                                                                                                                                         1 MRAPHIHISĀASGĀRĀIĀKLIPIIMĀQIWĀĀĒĀĀLIPQNDTRIDPĒAYGĀPCARGSQPWQ 60
                                                      VSLENGLSEHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                       Indels 0;
                                                                                                                                                                                                                                                       Gaps
```

```
APPLICANT: Monahan, John E.
APPLICANT: Monahan, John E.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Burgart, Lawrence J.
FIILE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
FILLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
FILLE DE INVENTION: THERAPY OF COLON CANCER
FILLE REFERENCE: MPM01-029P2RNM
CURRENT APPLICATION NUMBER: US/10/301,822
CURRENT FALING DATE: 2002-11-21
PRIOR APPLICATION NUMBER: US 60/339,971
PRIOR APPLICATION NUMBER: US 60/351,978
PRIOR APPLICATION NUMBER: US 60/361,978
PRIOR FILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 60/361,978
PRIOR FILING DATE: 2002-03-05
PR
RESULT 3
US-10-366-288-52
                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
US-10-301-822-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo Sapiens
US-10-301-822-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 1496; DB 12; Best Local Similarity 100.0%; Pred. No. 5.7e-141; Matches 276; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 95, Application US/10301822
Publication No. US20030148410A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Millennium Pharmaceuticals, APPLICANT: Berger, Allison APPLICANT: Guillemette, Tracy L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                               241
                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                  121 YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                  RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                           RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VSLENGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGBQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                            GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                               YHQGGGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kamatkar, Shubhangi
Schlegel, Robert
               Application US/10366288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>;</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

```
RESULT 4
US-10-021-368-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; LENGTH: 276
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-366-288-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/357,391
PRIOR FILING DATE: 2002-02-15
PRIOR APPLICATION NUMBER: 60/380,249
PRIOR FILING DATE: 2002-05-13
PRIOR APPLICATION NUMBER: 60/391,306
PRIOR FILING DATE: 2002-06-25
PRIOR APPLICATION NUMBER: 60/406,297
PRIOR APPLICATION NUMBER: 60/406,297
PRIOR FILING DATE: 2002-09-19
PRIOR FILING DATE: 2002-09-19
PRIOR FILING DATE: 2002-09-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/432,318
PRIOR FILING DATE: 2002-12-10
NUMBER OF SEQ ID NOS: 52
SOFTHARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 52
LENGTH: 276
                                                                                                                                                                                                                                                     Sequence 1, Application US/10021368 Publication No. US20020106367A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Publication No. US20030216288A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Powell, Douglas
APPLICANT: Weich, Marine S.
APPLICANT: Weich, Marine S.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING
TITLE OF INVENTION: AIDS AND HIV-RELATED DISORDERS USING 1414, 1481, 1553,
TITLE OF INVENTION: 1002, 1611, 1371, 1552, 1682, 1675, 12825, 9952, 5816
TITLE OF INVENTION: 1002, 1611, 1371, 14324, 126, 270, 312, 167, 326, 189
TITLE OF INVENTION: 6747, 1793, 1784 OR 2045 MOLECULES
FILE REFERENCE: MPIO2-055PIRMOMNIM
CURRENT APPLICATION NUMBER: US/10/366,288
CUERENT FILING DATE: 2003-02-13
                                                                                                                              DILCARIOL NO. GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Band, Vimla
APPLICANT: BAND, Vimla
APPLICANT: BAND, Vimla
TITLE OF INVENTION: NOLECULES AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Sim:
hes 276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/417,508 FILING DATE: 2002-10-10
                                                                    NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 VSLENGLSFHCAGVLVDQSWVLTAAHCGNKFLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MRAPHIHLSAASGARALAKILPILMAQLWAAEAALLPQNDTRIDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MRAPHIHISAASGARALAKULPILMAQIWAAEAALIPQNDTRIDPEAYGAPCARGSQPWQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                      GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                     GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RVKYNKGLTCSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VSLENGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 1496; DB 12; Length 276; ilarity 100.0%; Pred. No. 5.7e-141; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                           AND RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
```

```
JOPOLOGY: linear

MOLECULE TYPE: Protein

SEQUENCE DESCRIPTION: SEQ ID NO:
US-10-021-368-1
                                                                                                                                                                                                                                                                                       RESULT 5
US-10-097-340-167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                              APPLICANT: John MONAHAN
APPLICANT: Manjula GANNA
APPLICANT: Sebastian HOE
APPLICANT: Shubhangi KAM
APPLICANT: Steve G. KOVA
APPLICANT: Rachel E. MEY
                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                           Sequence 167, Application US/10097340 Publication No. US20030087250A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                         APPLICANT:
                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 200154
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PATENTIA Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/021,368

FILING DATE: 12-Dec-2001

CLASSIFICATION: «Unknown»

PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00398/100002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-8906
TELEFAX: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/201,038 FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGFLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                        241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                       241 GILSWGVYPCGSAOHPAVYTOICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VSLENGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNOTRLDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RVKYNKGLTCSSTTILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YHQGSGPILPRRTDEHDIMLIKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Clark, Paul T.
                                                       Rachel E. MEYERS
Michael MORRISEY
Peter OLANDT
                                                                                                                    Sebastian HOERSCH
Shubhangi KAMATKAR
Steve G. KOVATS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 276 amino acids
Gordon B. MILLS
                 Peter VEIBY
                                         Ami SEN
                                                                                                                                                                                  Manjula GANNAVARAPU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 1496; DB 14; Length 276; Pred. No. 5.7e-141; 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
```

```
PRIOR PILING DATE: 2001-03-14
PRIOR PELING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: 60/325,149
PRIOR APPLICATION NUMBER: 60/325,149
PRIOR APPLICATION NUMBER: 60/276,026
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001/09/26
PRIOR PILING DATE: 2001/09/26
PRIOR PILING DATE: 2001/09/26
PRIOR APPLICATION NUMBER: 60/321,732
PRIOR APPLICATION NUMBER: 60/311,732
PRIOR APPLICATION NUMBER: 60/325,102
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-19
NUMBER OF SEQ ID NOS: 363
SOFTMARE: FRASTSEQ for Windows Version 4.0
PRIOR THE 276
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밝
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                       US-10-021-368-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens
US-10-097-340-167
                                                                                                                                                                                                      Sequence 11, Application US/10021368
Publication No. US20020106367A1
GENERAL INFORMATION:
APPLICANT: Band, Vimla
TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA, AND RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: MRI-030
CURRENT APPLICATION NUMBER: US/10/097,340
CURRENT FILING DATE: 2002-03-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification, TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C
STREET: 225 Franklin Street
                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  276; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MRAPHIHISAASGARAIAKILPILMAQIWAAEAALIPQNDTRIDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                              GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RVKYNKGLTCSSITTLSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MRAPHIHISAASGARALAKILPILMAQIWAAEAALLPQNDTRIDPEAYGAPCARGSQPWQ 60
STATE: MA
COUNTRY: USA
ZIP: 02110-2804
                                                                    CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Karen GLATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Robert C. BAST, Jr.
Karen LU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rosemarie SCHMANDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1496; DB 15; Length 276; 100.0%; Pred. No. 5.7e-141; ative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                         MOLECULES AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
```

```
RESULT 7
US-09-946-374-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                            Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-021-368-11
                                                                                                                                                                                                                                                            Sequence 194, Application US/09946374
Publication No. US20030073129A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 96.3
Best Local Similarity 94.8
Matches 276; Conservative
                                                                                                                                                                                                                                            GENERAL
                                                                                                                                                 APPLICANT:
                                                                                                                                                                                      APPLICANT: Baker, Kevin P. APPLICANT: Botstein, David APPLICANT: Desnoyers, Luc
                                                                             APPLICANT:
                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 200154
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 11:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00398/100002
TELECOMMUNICATION IMFORMATION:
TELEPHONE: 61//542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/021,368
FILING DATE: 12-Dec-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/201,038 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                            INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                              229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             115
                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        μ
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
Goddowski, Paul J.
Grinaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
Pan, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVP---GPRVRALQLPYRCAQPGDQCQV
                                                                                                                                                                                                                                                                                                                                                                                                SGGPLVCDETLQGILSWGVY----PCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDH----LLLLQGEQLRRTTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MRAPHLHLSAASGARALAKLLPLLMAQLWAABAALLPQNDTRLDPBAYGANESPCARGSQ
                                                                                                                                                                                                                                                                                                                                                                       ŚGGPLVCDETLOGILSWGVYNESPCGSAQHPAVYTQICKYMSWINKVIRSN 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGWGTTAARRVKYNKGLTCSSITILSPK---ECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SVVHPKYHQGSGPILPRRIDEHDLMLLKLARPVVPNESGPRVRALQLPYRCAQPGDQCQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MRAPHIHISAASGARAIAKIIPIIMAQIWAABAAIIPQNDTRIDPBAYGA---PCARGSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                             AGWGTTAARRVKYNKGLTCSSITILSPKNESECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHNESLLLLQGEQLRRTTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 617/542-8906
                                                                                                                                                   Ferrara, Napoleone
                                                                                                                                                                   Desnoyers, Luc
Eaton, Dan L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1438.5; DB 14; Length 291; Pred. No. 3.3e-135; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ຫ
```

```
PRIOR APPLICATION NUMBER: 60/099716
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION UNMBER: 60/098723
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/09873
PRIOR FILING DATE: 1998-09-01
PRIOR PRIOR PRILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098803
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/098821
PRIOR APPLICATION NUMBER: 60/098821
PRIOR APPLICATION NUMBER: 60/099843
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/099536
PRIOR FILING DATE: 1998-09-09
PRIOR APPLICATION NUMBER: 60/099596
PRIOR APPLICATION NUMBER: 60/099602
PRIOR APPLICATION NUMBER: 60/099741
PRIOR APPLICATION NUMBER: 60/099741
PRIOR APPLICATION NUMBER: 60/099754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                               PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830PIC1 CURRENT APPLICATION NUMBER: US/09/946,374 CURRENT FILING DATE: 2001-09-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                              OR FILING DATE: 1998-09-10
OR APPLICATION NUMBER: 60/100385
OR FILING DATE: 1998-09-15
OR APPLICATION NUMBER: 60/100388
OR FILING DATE: 1998-09-15
OR APPLICATION NUMBER: 60/100390
OR FILING DATE: 1998-09-15
                                                                                                                 FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100662
FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100664
FILING DATE: 1998-09-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/099792
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/09808
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099812
                         APPLICATION NUMBER: 60/100683
FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/100684
                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/100584
FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099815
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099816
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/100661
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Williams, P. Mic
Wood, William I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roy, Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stewart, Timothy A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Paoni, Nicholas F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Margaret Ann
1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Danie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P. Mickey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Colin K.
```

```
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                          PRIOR
PRIOR
PRIOR
                                                                                    PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                     PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR
                                                                                                                                                                                                                                                                                        PRIOR PRIOR PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PR1OR
                                                                                                                                                                                                                                                                                                                                                     PRIOR
                                                                                                                                                                                                                  OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/10231
OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/102484
OR FILING DATE: 1998-09-30
OR APPLICATION NUMBER: 60/102487
OR APPLICATION NUMBER: 60/102487
OR APPLICATION NUMBER: 60/102487
OR FILING DATE: 1998-09-30
                                                                                                                                          APPLICATION NUMBER: 60/102570 FILING DATE: 1998-09-30 APPLICATION NUMBER: 60/102571 FILING DATE: 1998-09-30 APPLICATION NUMBER: 60/102684
                                        FILING DATE: 1998-10-02
APPLICATION NUMBER: 60/
FILING DATE: 1998-10-06
                                                                                                 FILING DATE: 1998-10-01
APPLICATION NUMBER: 60/
FILING DATE: 1998-10-01
                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-09-29
APPLICATION NUMBER: 60/102307
FILING DATE: 1998-09-29
APPLICATION NUMBER: 60/102330
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/
FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/100711
FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/100848
FILING DATE: 1998-09-18
APPLICATION NUMBER: 60/103314
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103315
                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/102207
FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1998-09-23
APPLICATION NUMBER: 60/101475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/
FILING DATE: 1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/101071
FILING DATE: 1998-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 1998-0
                                                                                 APPLICATION NUMBER: 60/102965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/101479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/101471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/101279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/101068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/100710 FILING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/102240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 1998-09-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1998-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1998-09-18
                                                      60/103258
                                                                                                                                                                                                                                                                                                                                                                                                                                       60/101916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/101743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60/101741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/101477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60/101476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/101474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60/101014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/100849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60/101915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/101472
                                                                                                                60/102687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/101738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/100930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60/100919
```

```
밁
                                                                                                                                                              S
                                                                                                                                                                                                                         ဌ
                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: 1998-10-06

PRIOR APPLICATION NUMBER: 60/103633

PRIOR FILING DATE: 1998-10-08

PRIOR APPLICATION NUMBER: 60/103678

PRIOR APPLICATION NUMBER: 60/103679

PRIOR FILING DATE: 1998-10-08

PRIOR PRIOR PILING DATE: 1998-10-14

PRIOR PILING DATE: 1998-10-14

PRIOR PILING DATE: 1998-10-17

PRIOR PILING DATE: 1998-10-20

PRIOR APPLICATION NUMBER: 60/105000

PRIOR PILING DATE: 1998-10-20

PRIOR PILING DATE: 1998-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 1998-10-07
PRIOR APPLICATION NUMBER: 60/103328
PRIOR FILING DATE: 1998-10-07
PRIOR FILING DATE: 1998-10-07
PRIOR FILING DATE: 1998-10-07
PRIOR REPLICATION NUMBER: 60/103396
PRIOR FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OR FILING DATE: 1998-10-21
OR APPLICATION NUMBER: 60/105169
OR PILING DATE: 1998-10-22
OR APPLICATION NUMBER: 60/105266
OR PILING DATE: 1998-10-22
OR APPLICATION NUMBER: 60/105693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-10-26
APPLICATION NUMBER: 60/
FILING DATE: 1998-10-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/105807
                                                                                                              172
                                                        260
                                                                                                                                                                    201
                                                                                                                                                                                                                         112
  232 TYICKYVDWIRMIMRNN
                                                                                                                                                                                                                                                             141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                     υ
O
                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23 LLMAQLWAAEAALLEQNDTRLDEEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                ٦,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                               LTAAHCSGSRYWVRLGEHSLSQLDWTEQTRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                         TQICKYMSWINKVIRSN
                                                                                                                                         CEVFYPGVVINNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                             LLCVLGLSQAA----TPKIFNGTECGKNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                           CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                    LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                      LREAL PVRVTSSVQPEPEPNDCATAGTECHVSGWGITNHPRNPFPDEEQCENESIVSHAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60/105694
                                                        276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29;
248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 564; DB 11; Lu; pred. No. 4.8e-48; u4:cmatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 18;
```

Gaps

171

111 140 57 81

RESULT 8 US-10-015-387A-194

Sequence 194, Application US/10015387A
publication No. US20030135034A1
GEMERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.

Baker, Kevin P.
Botstein, David
Desnoyers, Luc
Eaton, Dan 1.

```
RESULT 9
US-10-006-130A-194
; Sequence 194, Appl
; Publication No. U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-015-387A-194
                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Bestein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Baton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/015,387A
CURRENT FILING DATE: 2001-12-12
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 477
SEQ ID NO 194
LENGTH: 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                             APPLICANT: APPLICANT:
                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic PILE OF INVENTION: Acids Encoding the Same
                 TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830PLC7 CURRENT APPLICATION NUMBER: US/10/006,130A CURRENT FILING DATE: 2002-03-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: P2830P1C54
Prior Application removed - See File Wrapper or Palm
                                                                                                                                     APPLICANT:
                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                   APPLICANT:
                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y Match 37.7%; Score 564; DB 12;
Local Similarity 45.9%; Pred. No. 4.8e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58 LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23 LIMAQIWAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                   Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYICKYVDWIRMIMRNN 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CEVEYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LTAAHCGNKPLWARVGDDHULLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHCVÝPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVÝ
                                                                                                                   Pan, James
Paoni, Nicholas F.
                                                                                                                                                    Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fong, Sherman
Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                      Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10006130A
o. US20030148375A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57
```

```
; LENGTH: 248
; TYPE: PRT
; ORGANISM: Homo s
US-10-006-130A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          융
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-006-172A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 477
SEQ ID NO 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 194, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 45.9%;
                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICATION NUMBER: 60/099596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 TYÍCKÝVDWIRMIMRNN 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 CEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112 LRIRLÞÝRVTSSVQPÍÞÍÐNDCATAĞTECHÝSGWGITNHÞRNÞFÞDLLQCLNLSÍVSHAT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVXYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                82 LTAAHCGNKPLWARVGDDHLLLLQ-GEQLERTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23 LIMAQIMAAEAALLPQNDTRLDPEAY-GAPÇARGSQPWQVSLFNGLSFHCAGVLVDQSWV 81
                                                                                                                                                                                                                                                                                                                                                    Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLLCVLGLSQAA----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL 111
                                                                                                                                                                                                                                                                                                      Pan, James
Paoni, Nicholas F.
                                                                                                                                                                                                                                                                                                                              Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                   Ferrara, Napoleone
Fong, Sherman
                                                                                                                                                                                                                                                                                                                                                                                                                                              Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Botstein, David
Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/10006172A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US20030153000A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 564; DB 12;
Pred. No. 4.8e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          231
```

OR APPLICATION NUMBER: 60/101915
OR FILING DATE: 1998-09-24
OR APPLICATION NUMBER: 60/101916
OR APPLICATION NUMBER: 60/101916
OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/102207
OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/102207
OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/10230
OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/10231
OR APPLICATION NUMBER: 60/10231
OR FILING DATE: 1998-09-29
OR APPLICATION NUMBER: 60/102484
OR FILING DATE: 1998-09-30
OR APPLICATION NUMBER: 60/102487
OR APPLICATION NUMBER: 60/102570
OR APPLICATION NUMBER: 60/102570
OR APPLICATION NUMBER: 60/102571
OR APPLICATION NUMBER: 60/10267
OR FILING DATE: 1998-09-30
OR APPLICATION NUMBER: 60/102687
OR APPLICATION NUMBER: 60/102687 OR APPLICATION NUMBER: 60/101477
OR FILING DATE: 1998-09-23
OR APPLICATION NUMBER: 60/101479
OR FILING DATE: 1998-09-22
OR APPLICATION NUMBER: 60/101738
OR FILING DATE: 1998-09-24
OR APPLICATION NUMBER: 60/101741
OR FILING DATE: 1998-09-24
OR APPLICATION NUMBER: 60/101743
OR FILING DATE: 1998-09-24
OR APPLICATION NUMBER: 60/101743
OR FILING DATE: 1998-09-24 DR APPLICATION NUMBER: 60/103449
OR APPLICATION NUMBER: 60/10363
OR APPLICATION NUMBER: 60/103633
OR FILING DATE: 1998-10-08
OR APPLICATION NUMBER: 60/103678
OR APPLICATION NUMBER: 60/103679
OR APPLICATION NUMBER: 60/103679
OR APPLICATION NUMBER: 60/103711
OR FILING DATE: 1998-10-08
OR APPLICATION NUMBER: 60/104257
OR FILING DATE: 1998-10-14
OR APPLICATION NUMBER: 60/104987
OR APPLICATION NUMBER: 60/105000
OR APPLICATION NUMBER: 60/105000
OR FILING DATE: 1998-10-20
OR APPLICATION NUMBER: 60/105002
OR APPLICATION NUMBER: 60/105004
OR APPLICATION NUMBER: 60/105104
OR APPLICATION NUMBER: 60/105104
OR APPLICATION NUMBER: 60/105104
OR APPLICATION NUMBER: 60/105104 DR APPLICATION NUMBER: 60/103258
DR FILING DATE: 1998-10-06
DR FILING DATE: 1998-10-07
DR FILING DATE: 1998-10-07
DR FILING DATE: 1998-10-07
DR APPLICATION NUMBER: 60/103315
DR FILING DATE: 1998-10-07
DR APPLICATION NUMBER: 60/103328
DR FILING DATE: 1998-10-07
DR APPLICATION NUMBER: 60/103395
DR FILING DATE: 1998-10-07
DR APPLICATION NUMBER: 60/103396
DR FILING DATE: 1998-10-07
DR APPLICATION NUMBER: 60/103396
DR FILING DATE: 1998-10-07
DR APPLICATION NUMBER: 60/103401
DR FILING DATE: 1998-10-07

PRIOR PRIOR

DR APPLICATION NUMBER: 60/100930
OF FILING DATE: 1998-09-17
OR APPLICATION NUMBER: 60/101014
OR FILING DATE: 1998-09-18
OR APPLICATION NUMBER: 60/101068
OR APPLICATION NUMBER: 60/101071
OF FILING DATE: 1998-09-18
OR APPLICATION NUMBER: 60/10177
OR FILING DATE: 1998-09-18
OR APPLICATION NUMBER: 60/10179
OR FILING DATE: 1998-09-22
OR APPLICATION NUMBER: 60/101471
OR APPLICATION NUMBER: 60/101472
OR APPLICATION NUMBER: 60/101472
OR FILING DATE: 1998-09-23
OR APPLICATION NUMBER: 60/101474
OR FILING DATE: 1998-09-23
OR APPLICATION NUMBER: 60/101475
OR APPLICATION NUMBER: 60/101476
OR FILING DATE: 1998-09-23

PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR

PRIOR PRIOR PRIOR

OR FILING DATE: 1998-09-15
OR APPLICATION NUMBER: 60/100584
OR PELLING DATE: 1998-09-16
OR APPLICATION NUMBER: 60/100627
OR FILING DATE: 1998-09-16
OR PELLING DATE: 1998-09-16
OR PELLING DATE: 1998-09-16
OR APPLICATION NUMBER: 60/100661
OR APPLICATION NUMBER: 60/100664
OR APPLICATION NUMBER: 60/100683
OR APPLICATION NUMBER: 60/100683
OR APPLICATION NUMBER: 60/100684
OR APPLICATION NUMBER: 60/100710
OR APPLICATION NUMBER: 60/100711
OR APPLICATION NUMBER: 60/100711
OR APPLICATION NUMBER: 60/10084
OR PILING DATE: 1998-09-17
OR APPLICATION NUMBER: 60/10084
OR PILING DATE: 1998-09-18
OR APPLICATION NUMBER: 60/100849

PRIOR

OR FILING DATE: 1998-09-10
R APPLICATION NUMBER: 60/099812
DR FILING DATE: 1998-09-10
DR APPLICATION NUMBER: 60/099815
DR FILING DATE: 1998-09-10
DR APPLICATION NUMBER: 60/099816

PRIOR

APPLICATION NUMBER: 60/100388 FILING DATE: 1998-09-15 APPLICATION NUMBER: 60/100390

FILING DATE: 1998-0: APPLICATION NUMBER: FILING DATE: 1998-0:

1998-09-15 1998-09-10

60/100385

PRIOR PRIOR

PRIOR

PRIOR PRIOR

PRIOR

PRIOR PRIOR PRIOR PRIOR

OR APPLICATION NUMBER: 60/099741
OR FILING DATE: 1998-09-10
OR PILING DATE: 1998-09-10
OR FILING DATE: 1998-09-10
OR APPLICATION NUMBER: 60/099763
OR FILING DATE: 1998-09-10
OR APPLICATION NUMBER: 60/099792
OR APPLICATION NUMBER: 60/099792
OR APPLICATION NUMBER: 60/099808

R FILING DATE: 1998-09-09

R FILING DATE: 1998-09-09

R FILING DATE: 1998-09-09

R APPLICATION NUMBER: 60/099602

R FILING DATE: 1998-09-09

DATE: 1998-09-09

DATE: 1998-09-09

R FILING DATE: 1998-09-09

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
US-10-015-392A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 194, Application US/10015392A Publication No. US20030166901A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 118; Conserv
                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR
APPLICANT: Pan, James
APPLICANT: Paoni, Nicolas F.
APPLICANT: Paoni, Nicolas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830P1C58
CURRENT FILING DATE: 2001-12-12
ERIOR APPLICATION NUMBER: 60/098716
PRIOR APPLICATION NUMBER: 60/098716
PRIOR APPLICATION NUMBER: 60/098723
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098749
PRIOR APPLICATION NUMBER: 60/098749
PRIOR APPLICATION NUMBER: 60/098750
PRIOR APPLICATION NUMBER: 60/098750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Baker, APPLICANT: Botst
                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OR FILING DATE: 1998-10-22
OR APPLICATION NUMBER: 60/105693
OR APPLICATION NUMBER: 60/105694
OR APPLICATION NUMBER: 60/105694
OR FILING DATE: 1998-10-26
OR APPLICATION NUMBER: 60/105807
OR APPLICATION NUMBER: 60/105801
OR FILING DATE: 1998-10-27
OR APPLICATION NUMBER: 60/105881
OR FILING DATE: 1998-10-27
OR APPLICATION NUMBER: 60/105882
OR FILING DATE: 1998-10-27
OR APPLICATION NUMBER: 60/105802
OR FILING DATE: 1998-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1998-10-22
APPLICATION NUMBER: 60/105266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             260 TQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23 LIMAQIWAAEAALIPQNDTRIDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CEVFYPGVVTNNM1CAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS----TSHEHDLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYICKYVDWIRMIMRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                                                                                                                             Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                       Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                                    Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                          Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                              Desnoyers, Luc
Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45.9%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 564; DB 12;
Pred. No. 4.8e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
```

```
Ś
                                                                       B
                                                                                                            Ş
                                                                                                                                                   밁
                                                                                                                                                                                      Ś
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                           몆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-015-392A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/098803
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/09821
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/098843
PRIOR FILING DATE: 1998-09-02
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/09536
PRIOR APPLICATION NUMBER: 60/09536
PRIOR APPLICATION NUMBER: 60/09596
PRIOR APPLICATION NUMBER: 60/09596
PRIOR FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Remaining Prior Application data removed - NUMBER OF SEQ ID NOS: 477
SEQ ID NO 194
                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 1998-09-09
PRIOR APPLICATION NUMBER: 60/099598
PRIOR FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 248
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                   112
232
                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                    118; Conservative
                                                                                                                                                                                        141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                             58 LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                                      82
                                                                                                                                                                                                                                                                                                                                                23 LLMAQLWAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                             ٦,
                                                                                                                                                                                                                                                                  LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                             LILCVIGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
TYICKYVDWIRMIMRNN
                                    TQICKYMSWINKVIRSN 276
                                                                       CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                            CEVEYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                   LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT
                                                                                                                                                                                                                                                                                                                                                                                                         37.7%;
                                                                                                                                                                                                                                                                                                                                                                                      29;
248
                                                                                                                                                                                                                                                                                                                                                                                      Score 564; DB 12;
Pred. No. 4.8e-48;
Pred. No. 4.8e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       See File Wrapper or PALM.
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 248;
                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                        18;
                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                  259
                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                   111
                                                                                                                                                                                                                                                                                                                 57
                                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                       171
                                                                           231
```

```
US-10-017-253A-194
                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 194, A
Publication No.
                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                        APPLICANT:
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830PLC62
CURRENT APPLICATION NUMBER: US/10/017,253A
CURRENT FILING DATE: 2001-12-13
PRIOR APPLICATION NUMBER: 60/098716
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098723
PRIOR FILING DATE: 1998-09-01
                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                              Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                          Pan, James
Paoni, Nicholas F.
                                                                                                                                                                                            Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                              Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                                                                                                                             Botstein, David
Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                           Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                              Eaton, Dan l
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/10017253A
                                                                                                                                                                                                                                                                                                                                                                                                                                     US20030166055A1
```

and Nucleic

```
RESULT 13
US-10-017-306A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              헍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş

; ORGANISM: Homo sapiens
US-10-017-253A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 477
SEQ ID NO 194
LENGTH: 248
                                                                                                                                                                                                                                                                                                                                      Sequence 194, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830P1C66
CURRENT APPLICATION NUMBER: US/10/017,306A
                                                                        APPLICANT:
                                                                                                             APPLICANT:
                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                   APPLICANT: Baker,
                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/099536 FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/099596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/099598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-09-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/098843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/098749 FILING DATE: 1998-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/098823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/098803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/098750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37.7%; Score 564; DB 12; al Similarity 45.9%; Pred. No. 4.8e-48; 118; Conservative 29; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23 LIMAQUMAAEAALLEQNOTRIDEEAY-GAPCARGSQFWQVSLFNGLSEHCAGVIVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82 LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHGVÝPGRITSNMVČÁGGVPGÓDAČÓGDSGGPLVCGGVLÓGLVSMGSVGPCGQDGIPGVÝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYICKYVDWIRMIMRNN 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOICKYMSWINKVIRSN 276
                                                                                                         Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                         Goddard, Audrey
                                                                                             Pan, James
                                                                                                                                                                                                                                                              Desnoyers, Luc
Eaton, Dan 1.
                                                                                                                                                                                                                                                                                               Botstein, David
                                                                                                                                                                                                                                              Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                        Application US/10017306A
o. US20030170718A1
                                                                                                                                                                                                                                                                                                                       Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1998-09-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998-09-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ų
```

```
TITLE OF INVENTION: SCCRETCE and Transmembran
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830P1C19
CURRENT APPLICATION NUMBER: US/10/012,064A
CURRENT FILING DATE: 2002-07-15
PRIOR APPLICATION NUMBER: 60/098716
PRIOR FILING DATE: 1998-09-01
PRIOR PILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098723
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098749
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098750
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098803
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/098803
PRIOR PRILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/098821
PRIOR APPLICATION NUMBER: 60/098821
PRIOR FILING DATE: 1998-09-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-017-306A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-012-064A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 194, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prior Application removed -
NUMBER OF SEQ ID NOS: 477
SEQ ID NO 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
APPLICATION NUMBER: 60/098843
FILING DATE: 1998-09-02
APPLICATION NUMBER: 60/099536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58 LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23 LIMAQIWAAEAALIPQNDTRIDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYICKYVDWIRMIMRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Godowski, Paul J.
Grimaldi, Christopher
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                 Paoni, Nicholas F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pan, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10012064A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US20030180836A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             37.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See File Wrapper or Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
                                                                                                                                                                                                                                                                                                                                                                                                           and Transmembrane Polypeptides and Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 564; DB 12;
Pred. No. 4.8e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cı.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
```

```
RESULT 15
US-10-017-867A-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-012-064A-194
PRIOR APPLICATION NUMBER: 60/098716
PRIOR FILING DATE: 1998-09-01
PRIOR PEPLICATION NUMBER: 60/098723
PRIOR APPLICATION NUMBER: 60/098723
PRIOR APPLICATION NUMBER: 60/098749
PRIOR APPLICATION NUMBER: 60/098750
PRIOR PILING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/099596
PRIOR FILING DATE: 1998-09-09
PRIOR APPLICATION NUMBER: 60/099598
PRIOR FILING DATE: 1998-09-09
Prior Application data removed - See File Wrapper or PALM.
NUMBER: OF SEQ ID NOS: 477
                                                                                                                                                                                                                                         FILE REFERENCE: P2830P1C60
CURRENT APPLICATION NUMBER: US/10/017,867A
CURRENT FILING DATE: 2001-12-13
                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same
                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 248
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        232 TYICKYVDWIRMIMRNN 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141 LKLARPYVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58 LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82 LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23 LIMAQIMAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CEVEYPGVVTNIMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRIRIPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCINLSIVSHAT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gao,
                                                                                                                                                                                                                                                                                                                                                                                                                     Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                                                                                                                                                     Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                              Paoni,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fong,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eaton, Dan l.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Botstein, David
                                                                                                                                                                                                                                                                                                                                                                  Pan, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/10017867A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US20030180792A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kevin P.
                                                                                                                                                                                                                                                                                                                                            Nicholas F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sherman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37.7%; Score 564; DB 12; 45.9%; Pred. No. 4.8e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259
```

PRIOR APPLICATION NUMBER: 60/098843
FILING DATE: 1998-09-02
APPLICATION NUMBER: 60/099536
FILING DATE: 1998-09-09 FILING DATE: 1998-09-16 APPLICATION NUMBER: 60/100683 FILING DATE: 1998-09-17 FILING DATE: 1998-09-10 APPLICATION NUMBER: 60/099792 APPLICATION NUMBER: 60/099754 FILING DATE: 1998-09-10 APPLICATION NUMBER: 60/099763 FILING DATE: 1998-09-09 APPLICATION NUMBER: 60/099642 FILING DATE: 1998-09-09 APPLICATION NUMBER: 60/101471 FILING DATE: 1998-09-23 APPLICATION NUMBER: 60/101472 FILING DATE: 1998-09-18 APPLICATION NUMBER: 60/101279 APPLICATION NUMBER: 60/101068 FILING DATE: 1998-09-18 APPLICATION NUMBER: 60/101071 FILING DATE: 1998-09-17 APPLICATION NUMBER: 60/101014 FILING DATE: 1998-09-18
APPLICATION NUMBER: 60/100919
FILING DATE: 1998-09-17 APPLICATION NUMBER: 60/100848 FILING DATE: 1998-09-18 APPLICATION NUMBER: 60/100849 FILING DATE: 1998-09-17 APPLICATION NUMBER: 60/: FILING DATE: 1998-09-17 FILING DATE: 1998-09-17 APPLICATION NUMBER: 60/100710 APPLICATION NUMBER: 60/100662 FILING DATE: 1998-09-16 FILING DATE: 1998-09-16 APPLICATION NUMBER: 60/100661 FILING DATE: 1998-09-16 APPLICATION NUMBER: 60/100390 FILING DATE: 1998-09-15 APPLICATION NUMBER: 60/100584 FILING DATE: 1998-09-16 FILING DATE: 1998-09-15 APPLICATION NUMBER: 60/100388 APPLICATION NUMBER: 60/099816 FILING DATE: 1998-09-10 APPLICATION NUMBER: 60/099815 APPLICATION NUMBER: 60/099812 APPLICATION NUMBER: FILING DATE: 1998-09 APPLICATION NUMBER: 60/099741 APPLICATION NUMBER: 60/099602 APPLICATION NUMBER: 60/099598 APPLICATION NUMBER: 60/099596 FILING DATE: 1998-09-22 FILING DATE: 1998-09-APPLICATION NUMBER: 60/100930 APPLICATION NUMBER: 60/100684 APPLICATION NUMBER: 60/100664 APPLICATION NUMBER: 60/100627 FILING DATE: 1998-09-15 APPLICATION NUMBER: 60/100385 FILING DATE: 1998-09-10 FILING DATE: FILING DATE: 1998-09-10 FILING DATE: LING DATE: 1998-09-09 1998-09-09 1998-09-10 1998-09-10 1998-09-23 1998-09-10 60/100711 60/099808

```
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                 PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                            PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
FILING DATE:
APPLICATION I
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-09-29
APPLICATION NUMBER: 60/102331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/102207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/101915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-23
APPLICATION NUMBER: 60/101738
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-09-23
APPLICATION NUMBER: 60/101477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1998-09-1
APPLICATION NUMBER: 61
FILING DATE: 1998-09-1
                                                     APPLICATION NUMBER: 60/103711
FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/104257
FILING DATE: 1998-10-14
                                                                                                                                                                                                                     FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/
                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/103315
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103328
FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/103258 FILING DATE: 1998-10-06 APPLICATION NUMBER: 60/103314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/102684
FILING DATE: 1998-10-01
APPLICATION NUMBER: 60/102687
FILING DATE: 1998-10-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/:
FILING DATE: 1998-09-30
APPLICATION NUMBER: 60/:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/
FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/101743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                          APPLICATION NUMBER:
                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                         FILING DATE: 1998-10-06
APPLICATION NUMBER: 60/103633
                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/103395
FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/
FILING DATE: 1998-10-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-0
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                   FILING DATE: 1998-10-08
                                                                                                                                                           APPLICATION NUMBER: 60/103678
                                                                                                                                                                              FILING DATE: 1998-10-08
                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/103396
                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1998-09-23
NUMBER: 60/101475
                            1998-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1998-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1998-09-24
                                                                                                                                               1998-10-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/102330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/102307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/101741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60/101476
                                                                                                                                                                                                                       60/103449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/102570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/102487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60/101916
                                        60/104987
                                                                                                                               60/103679
                                                                                                                                                                                                                                                    60/103401
                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/102965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60/102571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/102484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60/102240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/101479
```

```
δ
                                                                             밁
                                                                                                               Ś
                                                                                                                                                           밁
                                                                                                                                                                                               S
                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 118; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OR FILING DATE: 1998-10-22
OR APPLICATION NUMBER: 60/105693
OR FILING DATE: 1998-10-26
OR APPLICATION NUMBER: 60/105694
OR APPLICATION NUMBER: 60/105694
OR APPLICATION NUMBER: 60/105807
OR APPLICATION NUMBER: 60/105807
OR APPLICATION NUMBER: 60/105881
OR FILING DATE: 1998-10-27
OR APPLICATION NUMBER: 60/105882
OR FILING DATE: 1998-10-27
OR APPLICATION NUMBER: 60/105882
OR FILING DATE: 1998-10-27
OR APPLICATION NUMBER: 60/105882
OR FILING DATE: 1998-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OR APPLICATION NUMBER: 60/105002
OR FILING DATE: 1998-10-20
OR APPLICATION NUMBER: 60/105104
OR FILING DATE: 1998-10-21
OR APPLICATION NUMBER: 60/105169
OR FILING DATE: 1998-10-22
OR APPLICATION NUMBER: 60/105266
                                                                             172
                                                                                                                                                             112
232
                                          260
                                                                                                                       201
                                                                                                                                                                                               141 EKLARPYVPGPRYRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE 200
                                                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                              82
                                                                                                                                                                                                                                                                                                                                                      23 LLMAQLWAAEAALLEQUDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                        7
  TYICKYVDWIRMIMRNN
                         TQICKYMSWINKVIRSN
                                                                                                               CEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVX
                                                                                                                                                           LRIRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                         LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                                              LTAAHCGNKPLWARVGDDHLLLLQ-GBQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                                      LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                             CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  37.7%; Score 564; DB 12;
45.9%; Pred. No. 4.8e-48;
tive 29; Mismatches 92;
248
                                          276
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                      Indels
```

18:

Gaps

ហ

81

57

140

111

259

Search completed: November 25, 2003, 09:13:57 Job time : 48 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM protein -
       on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length
       Issued Patents AA:*

1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                328717 seqs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-021-368-1
1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              November 25, 2003, 09:06:20 ; Search time 22 Seconds (without alignments) 530.809 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MRAPHLHLSAASGARALAKL.....AVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
       멂
   US-08-467-155A-1
US-08-628-198-1
US-09-201-038-1
PCT-US96-07343-1
US-08-628-198-11
US-08-628-198-11
US-09-201-038-11
US-09-201-038-11
US-09-201-038-11
US-09-154-344-2
US-08-93-018-2
US-09-154-344-2
US-09-154-344-2
US-09-076-762-3
PCT-US96-04294-2
US-09-076-762-3
US-09-070-526-2
US-09-070-526-2
US-09-386-642-13
US-09-025-059-3
US-09-025-059-3
US-09-025-059-3
US-09-025-059-3
US-09-025-558-42-1
US-09-025-558-42-1
US-09-025-558-42-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328717
                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
1, Appli
1, Appli
1, Appli
11, Appli
11, Appli
11, Appli
11, Appli
2, Appli
2, Appli
3, Appli
3, Appli
3, Appli
3, Appli
3, Appli
3, Appli
4, Appli
12, Appli
13, Appli
14, Appli
15, Appli
16, Appli
17, Appli
18, Appli
19, Appl
```

34 491 32.8 223 2 US-1 35 491 32.8 223 2 US-1 36 491 32.8 223 2 US-1 37 491 32.8 223 2 US-1 38 491 32.8 223 3 US-1 40 491 32.8 223 3 US-1 41 491 32.8 223 3 US-1 42 491 32.8 223 3 US-1 43 488.5 32.7 248 3 US-1 44 488.5 32.7 248 3 US-1 45 488.5 32.7 246 2 US-1 45 488.5 32.7 246 2 US-1 45 488.5 32.7 293 4 US-1 45 488.5 32.7 246 2 US-1 45 488.5 32.7 246 2 US-1 45 488.5 32.7 293 4 US-1 46 491 32.8 223 3 US-1 47 1	
34 34 34 36 36 37 37 37 37 37 40 40 40 40 40 40 41 41 42 43 43 44 44 48 45 45 45 45 45 45 45 45 45 467-11 46 467-11 46 47 48 48 48 49 49 49 49 40 40 40 40 40 40 40 40 40 40 40 40 40	
**************************************	32 32 32 32 32 32 32 32 32 32 32 32 32 3
一一一一一点点点,这是点点,这是这个话的是外面,我们是有一种的人,我们也知道,我们的是一个人,他们的是他的是他的是他的事情,	4444
491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491 32.8 491	91 91 93
32.8 32.8 32.8 32.8 32.8 32.8 32.8 32.8	$\omega \alpha \alpha \alpha \alpha \alpha$
1 32.8 1 32.8 2 32.7 5 32.7 5 32.7 5 32.7 5 32.7 7 Band, Vi TIVENTION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITION: TOWNITIONI	
1 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.8 223 32.2 246 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.7 248 32.1 248 32.7 248 32.7 248 32.7 248 32.1 248 32.1 248 32.1 248 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.1 248 32.2 246 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 32.2 248 3	444444
32.8 223 2 US-08-96-149 32.8 223 2 US-08-08-149 32.8 223 2 US-08-01-62-119 32.8 223 3 US-09-074-650 32.8 223 3 US-09-106-466 32.8 223 223 US-09-106-466 32.8 223 223 US-09-106-466 32.8 223 223 US-09-106-466 32.8 223 223 US	
2 U 2 U 2 U 3 U 3 U 3 U 3 U 3 U 3 U 3 U 3	
2 US-08-296-14 2 US-08-801-49 2 US-08-801-49 2 US-08-801-49 2 US-08-801-49 3 US-09-074-65 3 US-09-074-65 3 US-09-106-46 4 US-09-96-24 4 US-09-978-40 4 US-09-978-40 4 US-09-978-40 4 US-09-978-40 6 US-08-978-40 6 US-08	0-50 0-50 0-50 0-50 0-50
08-296-149 08-296-149 08-296-149 08-801-149 08-801-149 09-00-616-469 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-468 09-106-4	18 8 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9
-296-1499 -801-499 -801-499 -801-499 -801-499 -101-496 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -106-466 -1	3-86-26 7-11-26-26
0.0-36-1416-9 0.0-36-1416-9 0.0-36-14-9-9 0.0-36-15-271-9 0.0-36-15-271-9 0.0-74-659-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9 0.0-106-468-9	57A 59-9 57-9
DB 1; e-146 e-146 LLPON	N
AND F	
RELATED RELATED RELATED RELATED See See See See See See See See See Se	
3AYG 2	22222
223 2 US-08-26-149-9 Sequence 9, MY 223 2 US-08-201-149-9 Sequence 9, MY 223 3 US-09-074-650-9 Sequence 9, MY 223 3 US-09-106-468-9 Sequence 9, MY 223 3 US-09-106-468-9 Sequence 9, MY 223 3 US-09-106-468-9 Sequence 9, MY 223 3 US-09-120-582-2 23 3 US-09-120-582-2 24 3 US-09-120-582-2 25 Sequence 24, MY 26 Sequence 24, MY 27 Sequence 24, MY 28 Sequence 24, MY 29 Sequence 24, MY 29 Sequence 24, MY 29 Sequence 24, MY 29 Sequence 24, MY 20 Se	Sequence Sequence Sequence Sequence
R—R — R — S — S — S — S — S — S — S — S	
S—Ops  409  409  409  409  409  409  409  40	A A A A A A A A A A A A A A A A A A A
WQ 60	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-08-628-198-1
                         Ş
                                                       밁
                                                                                  Š
밁
                                                                                                                                                                                   US-08-628-198-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application Us/
Patent No. 5843694
GENERAL INFORMATION:
APPLICANT: Band, Vimla
                                                                                                                    Query Match
Best Local S
Matches 276
                                                                                                                                                                                                                                                                      TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: CLARK, PAUL T.
REGISTRATION UNMER: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECOMMUNICATION INFORMATION:
TELESPANE: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: NES-1 POLYPEPTIDES, D. TITLE OF INVENTION: MOLECULES AND METHODS NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                TOPOLOGY: 1:
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/4
FILING DATE: 06-JUN-1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                      276;
5
                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02110-2804
                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VSLFNGLSFHCAGVLYDQSWYLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVYHPK 120
                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YHQGSGPILPRRTDEHDIMLIKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08628198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YHOGSGPILPRRIDEHDLMLLKLARPVVPGPRVRALOLPYRCAQPGDQCQVAGWGTTAAR
                                                                        | MRAPHLHLSAASGARALAKLLP5LMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ 60
                   \V$LFNGL$FHCAGVL\VDQ$W\LTAAHCGNKFLWAR\VGDDHLLLLQGEQLRRTTR$V\HPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                             MRAPHLHLSAASGARALAKLIPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                      Conservative
                                                                                                                                                                                                                  linear
                                                                                                                                                                                              protein
                                                                                                                                                                                                                             not relevant
                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08/467,155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/08/628,198
                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                        00398/100002
                                                                                                                                      Score 1496; DB 2;
Pred. No. 3.4e-146;
                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND
                                                                                                                         0
                                                                                                                                                    Length 276;
                                                                                                                         Indels
                                                                                                                         ö
                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
```

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
US-09-201-038-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                        S
                                                                                                         Вþ
                                                                                                                                       Ś
                S
                                               8
                                                                                                                                                                                                                                    ; TOPOLOGY: 1:
; MOLECULE TYPE:
US-09-201-038-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/09201038 Patent No. 6153387
                                                                                                                                                                        Best Local
Matches 2
                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Band,
                                                                                                                                                                                                                                                                                                                             TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: NES-1 POLYPEPTIDES, DI
TITLE OF INVENTION: MOLECULES AND METHODS
NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/201,03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 02110-2804
                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: not
                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDBGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                  121
                                               62
                                                                             61
                                                                                                           Н
                                                                                                                              1 MRAPHIHISAASGARALAKILPILMAQIWAAEAAILPQNDTRIDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ž
YHQGSGPILPRRTDBHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                              VSLENGLSEHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                            MRAPHLHLSAASGARALAKLLPLLMAQLWAABAALLPQNDTRLDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                  276 amino acids
                                                                                                                                                                                                                                                                                                                                                                             617/542-5070
617/542-8906
                                                                                                                                                                      100.0%; Score 1496; DB 3; ilarity 100.0%; Pred. No. 3.4e-146; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Band, Vimla
                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                   not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08/628,198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/09/201,038
                                                                                                                                                                                                                                                                                                                                                                                                                             00398/100002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA, AND RELATED
                                                                                                                                                                            Indels
                                                                                                                                                                                                        Length
                                                                                                                                                                                                       276;
                                                                                                                                                                            0
                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                    120
                       180
                                                                                                                60
                                                                                                                                                                            0
```

```
Ś
   Ş
                                밁
                                                                                        몽
                                                                                                                  Ś
                                                                                                                                               문
                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                    PCT-US96-07343-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCT-US96-07343-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application:
                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: New England Medical Center Hospitals, TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA, AND TITLE OF INVENTION: MOLECULES AND METHODS NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 2. STREET: STREET: 4. Boston
                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 61//542-8906
                                                                                                                                                                                                                                                                                                                         LENGTH: 276 amino acids
TYPE: amino acid
                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 0
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
    181
                                121
                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                         61
                                                                                                     61 VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTKSVVHPK 120
                                                                                                                                                                                                          276;
                                                                                                                                                                1 MRAPHLHISAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ
                                                                                                                                                  ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02110-2804
RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                 YHQGSGDILPRRTDEHDIMILKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                      VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                             YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                              MRAPHLHLSAASGARALAKLLPLLMAQLWAABAALLPQNDTRLDPBAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application PC/TUS9607343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR 180
                                                                                                                                                                                                                                                                                                                                                                                     200154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-JUN-1995
                                                                                                                                                                                                                                                                                                             not relevant
                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT/US96/07343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08/467,155
                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                00398/100001
                                                                                                                                                                                                       Score 1496; DB 5;
Pred. No. 3.4e-146;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RELATED
                                                                                                                                                                                                                                    276;
                                                                                                                                                                                                       0
                                                                                                                                                                                                       Gaps
                             180
                                                                                                                                               60
                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                       0
                     Ś
                                                       밁
                                                                                Ş
                                                                                                               밁
                                                                                                                                          Ş
                                                                                                                                                                         밁
                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                      Query Match
                        229
                                                       181
                                                                                                               121
                                                                                                                                            115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                         61
                                                                                                                                                                                                     28
```

```
RESULT 5
US-08-467-155A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-467-155A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 11, Application US/08467155A Patent No. 5736377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/461
FILING DATE: 06-UN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION: APPLICANT: Band,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 200154
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 1i
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 291 amino acio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                  276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                              1 MRAPHIHLSAASGARALAKLIPILMAQIWAAEAALLPQNDTRLDPEAYGA----PCARGSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Boston
                                                                                                                                                                                                                                                                   PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDH----LLLLQGEQLRRTTR 114
                                                                                                        AGWGTTAARRVKYNKGLTCSSITILSPK---ECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                                                          SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPNESGPRVRALQLPYRCAQPGDQCQV
                                                                                                                                                                                                SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVP---GPRVRALQLPYRCAQPGDQCQV 171
                                                                                                                                                                                                                                        PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHNESLLLLQGEQLRRTTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SGGPLVCDETLQGILSWGVYNESPCGSAQHPAVYTQICKYMSWINKVIRSN
                                     SEGEPLYCDETLQGILSWGYY---PCGSAQHPAYYTQICKYMSWINKVIRSN
                                                                           AGWGTTAARRVKYNKGLTCSSITILSPKNESECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                                                                                                                                                                                                                   MRAPHLHLSÄÄSGÄRALAKLIPLIMAQLWAAEAALLPQNDTRIDPEAYGANESPCARGSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                291 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vimla
                                                                                                                                                                                                                                                                                                                                                                                                                     96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NES-1 POLYPEPTIDES, DNA, MOLECULES AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/08/467,155A
                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            00398/100001
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1438.5;
Pred. No. 3.1
                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                       .le-140;
                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND RELATED
                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                  15;
291
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                     228
                                                                                                                                                            180
                                                                                                                                                                                                                                          120
                                                                               240
```

```
Ş
                                                                밁
                                                                                                Ş
                                                                                                                                       8
                                                                                                                                                                 Ş
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                Ś
맑
                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-628-198-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-628-198-11
                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 276; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 11, Appli
Patent No. 5843694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRIEX: 200154
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 08/467,15
FILING DATE: 06-UNN-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: CLASK, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECHMUNICATION INFORMATION:
TELEPHONE: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Band,
                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA, AND RELATED TITLE OF INVENTION: MOLECULES AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 291 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
241
                               229
                                                                  181
                                                                                                    172
                                                                                                                                       121
                                                                                                                                                                      115
                                                                                                                                                                                                            62
                                                                                                                                                                                                                                           58
                                                                                                                                                                                                                                                                                4
                                                                                                                                                                                                                                                                                                                  \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Boston
                                                                                                                                                                                                                                PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDH----LLLLQGEQLRRTTR 114
                                                                                                                                                                                                                                                                                                   MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGA----PCARGSQ 57
                  SGGPLVCDETLQGILSWGVY---PCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                          AGWGTTAARRVKYNKGLICSSITILSPK---ECEVFYPGVVTNNMICAGLDRGODPCQSD 228
                                                                                                                                                                      SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVP---GPRVRALQLPYRCAQPGDQCQV 171
                                                                                                                                                                                                                                                                              MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGANESPCARGSQ 60
SGGPLVCDETLQGILSWGVYNESPCGSAQHPAVYTQICKYMSWINKVIRSN 291
                                                                  AGWGTTAARRVKYNKGLTCSSITILSPKNESECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                                       SVVHPKYHQGSGPILPRRTDEHDIMLIKLARPVVPNESGPRVRALQLPYRCAQPGDQCQV 180
                                                                                                                                                                                                          PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHNESLLLLQGEQLRRTTR 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08628198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vimla
                                                                                                                                                                                                                                                                                                                                                                    96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ļ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08/467,155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/628,198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11:
                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      00398/100002
                                                                                                                                                                                                                                                                                                                                                   Score 1438.5; DB 2;
Pred. No. 3.1e-140;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #1.30
                                                                                                                                                                                                                                                                                                                                                   Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                   Length 291;
                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                  240
```

RESULT

٠,

RESULT 8
PCT-US96-07343-11
PCT-US96-07343-11
Sequence 11, Application PC/TUS9607343
GENERAL INFORMATION:

```
Ś
                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-201-038-11
 믕
                           S
                                                               밁
                                                                                       á
                                                                                                                            먉
                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                          US-09-201-038-11
                                                                                                                                                                                                                                                                                                                       Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 11, Application US/09201038
Patent No. 6153387
GENERAL INFORMATION:
APPLICANT: Band, Vimla
TITLE OF INVENTION: NES-1 POLYPEPTIDES, DNA,
TITLE OF INVENTION: MOLECULES AND METHODS
                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
AMME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0039
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: not
TOPOLOGY: linear
MOLECULE TYPE: prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDITION OF THE STREET: SOSTON MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/201,038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
 241
                                                               181
                                                                                              172
                                                                                                                            121
                                                                                                                                                             115
                              229
                                                                                                                                                                                                                                                                                                                         276;
                                                                                                                                                                                            19
                                                                                                                                                                                                                      58 PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDH----LLLLQGEQLRRTTR 114
                                                                                                                                                                                                                                                           1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                      l: 291 amino acids amino acid
SGGPLVCDETLQGILSWGVYNESPCGSAQHPAVYTQICKYMSWINKVIRSN
                  SGGPLVCDETLQGILSWGVY---PCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                   AGWGTTAARRVKYNKGLTCSSITILSPK----ECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                            SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPNESGPRVRALQLPYRCAQPGDQCQV
                                                                                                                                                          SVVHPKYHQGSGFILPRRTDEHDLMLLKLARPVVP---GPRVRALQLPYRCAQPGDQCQV
                                                                                                                                                                                                                                                           MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGANESPCARGSQ
                                                                                                                                                                                                                                                                            MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGA---PCARGSQ
                                                             AGWGTTAARRVKYNKGLTCSSITILSPKNESECEVFYPGVVTNNMICAGLDRGQDPCQSD
                                                                                                                                                                                            PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHNESLLLLQGEQLRRTTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        protein
                                                                                                                                                                                                                                                                                                                                                                                                                                      not relevant
                                                                                                                                                                                                                                                                                                                                        96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08/628,198
                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                          Score 1438.5;
Pred. No. 3.16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        00398/100002
                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P.C
                                                                                                                                                                                                                                                                                                                                        .5; DB 3;
3.1e-140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND RELATED
                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                        ω,
                                                                                                                                                                                                                                                                                                                         indels
                                                                                                                                                                                                                                                                                                                                                        Length 291;
                                                                                                                                                                                                                                                                                                                         15;
 291
                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                            180
                                                                                            228
                                                                                                                                                             171
                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                            57
                                                                                                                                                                                              120
```

ű

```
Ś
                                                                                            RESULT 9
US-08-557-146-2
                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT-US96-07343-11
Sequence 2, Application US/08557146
PATENT NO. 5834290
GENERAL INFORMATION:
APPLICANT: Egelrud, Torbjorn
APPLICANT: Hansson, Lennart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELERAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 11:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIF: 02110-2804
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPETING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: CLARK, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00398/100001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 291 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/467,155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                      229
                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                              172
                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                  115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276;
                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                      58
                                                                                                                                                                                                                                                                                                                                                                                                                                                            بر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGA---PCARGSQ 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Boston
                                                                                                                                                                                                                                                                                                                                     SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVP---GPRVRALQLPYRCAQPGDQCQV 171
                                                                                                                                                                                           SGGPLVCDETLQGILSWGVY---PCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                             AGWGTTAARRVKYNKGLTCSSITILSPK---ECEVFYPGVVTNNMICAGLDRGQDPCQSD 228
                                                                                                                                                                                                                                                                                                            SVVHPKYHQGSGPILPRRTDEHDLMLLKLARPVVPNESGPRVRALQLPYRCAQPGDQCQV
                                                                                                                                                                                                                                                                                                                                                                                    PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHNESLLLLLQGEQLRRTTR
                                                                                                                                                                  SGGPLVCDETLQGILSWGVYNESPCGSAQHPAVYTQICKYMSWINKVIRSN 291
                                                                                                                                                                                                                                        AGWGTTAARRVKYNKGLTCSSITILSPKNESECEVFYPGVVINNMICAGLDRGQDPCQSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                      MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGANESPCARGSQ
                                                                                                                                                                                                                                                                                                                                                                                                                    PWQVSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDH---LLLLQGEQLRRTTR 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             291 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New England Medical Center Hospitals, AVENTION: NES-1 POLYPEPTIDES, DNA, AND VENTION: MOLECULES AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT/US96/07343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1438.5; DB 5;
Pred. No. 3.1e-140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Inc.
RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ს
```

```
RESULT 10
US-08-824-874-3
                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; MOLECULE TYPE: protein US-08-557-146-2
                                                                           Sequence 3, Application US/08824874
Patent No. 5962300
GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Lal, preeti
TITLE OF INVENTION: NOVEL KALLIKREIN
NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (212) 354-8113
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Sterner, Richard J.
REGISTRATION NUMBER: 35,372
REFERENCE/DOCKET NUMBER: 110
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 819-8783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Ph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
CURRENT APPLICATION DATA:
APPLICATION MADER: US/08/557,146
FILING DATE: 14-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
STREET: 3174 POI
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 253 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A. ZIP: 10036-2787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108;
                                                                                                                                                                                                                                                                                            229 PNDPGVYTQVCKFTKWINDTMKKH
                                                                                                                                                                                                                                                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                                                                                                                                                          194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           134 DEHDIMILKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14 ARALAKLIPLIMAQLWAABAALLPQNDTRLDPBAYGAPCARGSQPWQVSLFNGLSFHCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74 VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N
                                                                                                                                                                                                                                                                                                                                   AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                  HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARSILLPIQILLISLALETAGEBAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VLVNERWVLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY----STQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New York
                                                                                                                                                                                                                                                                                                                                                                     KLISPQDCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ
                    E: Incyte Pharmaceuticals,
3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1155 Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           White & Case, Pa
55 Avenue of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Recombinant St
Enzyme (SCCB)
: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36.7%; Score 549; DB 2;
40.9%; Pred. No. 1.2e-48;
tive 45; Mismatches 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent Department
he Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1103326-181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stratum Corneum Chymotryptic
                                                                                                                                                                                                                                                                                              252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                  168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57
                                                                                                                                                                                                                                                                                                                                                                     228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108
```

```
Sequence 2, Application US/0915434.

Patent No. 5981256
GENERAL INFORMATION:
APPLICANT: Egelrud, Torbjorn
APPLICANT: Hansson, Lennart
TITLE OF INVENTION: Recombinant
TITLE OF INVENTION: Enzyme (SC)
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                            RESULT 11
US-09-154-344-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; CLONE:
US-08-824-874-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/824
FILING DATE: Filed Herewith
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION UMBER:
PILING DATE:
APPLICATION NUMBER:
PILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REFISTRATION NUMBER: 95-0
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION THEORMATION:
TELECOMMUNICATION THEORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM CON
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                      ADDRESSEE:
STREET: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                    ITY: New York
TATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                          169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134 DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                            229 PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74 VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARALAKILPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAG
                                                                                                                                                                                                                                                                                                                                                                                                AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                          KLISPQDCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VLVNERWVLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ARSILLPLQILLLSLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                                                                                                                                                         Application US/09154344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             532504
                                                        E: White & Case, Patent Dep
1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenBank
U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36.7%;
                                                                                                                                    Recombinant Stratum Corneum Chymotryptic Enzyme (SCCE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/08/824,874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Score 549; DB 2; Length 253;
; Pred. No. 1.2e-48;
45; Mismatches 97; Indels 14;
                                                                             Patent Department
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PF-0252 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; MOLECULE TYPE: protein US-09-154-344-2
                                                                                                                                                                                                                                                                                                        US-08-930-188-2
                                                                                                                                                                                                                                                                                                                         RESULT 12
                                                                                              equeva-
equeva-
Patent NO. 60933...
GENERAL INFORMATION:
GENERAL INFORMATION: APPLICANT: Dixon, Etic P.
APPLICANT: Johnstone, Edward M.
APPLICANT: Little, Sheila P.
APPLICANT: Little, Sheila P.
APPLICANT: Little, Sheila P.
APPLICANT: AMYLOID PRECURSOR PROTEIN PROTEASE AND
TTTIR OF INVENTION: RELATED NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 108;
                                                                                                                                                                                                                                                                    Sequence 2, Application US/08930188 Patent No. 6093397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (212) 354-81
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 10036-2787
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Sterner, Richard J.
REGISTRATION NUMBER: 35,372
REFERENCE/DOCKET NUMBER: 111
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Sterner, Richard J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION NUMBER: US 08/557,146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
COMPUTER READABLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 14-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                  CITY: Indianapolis
                                                                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                              253 AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                  169 KLISPODCTKVYKDILENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFFCGQ 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134 DEHDIMILKLARPVVPGPRVRALQIPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                            229 PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14 ARALLAKILPILMAQIMAABAALIPQNDTRIDPBAYGAPCARGSQPWQVSLFNGLSFHCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N
                    46285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ARSTILLPLQILLLSLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                    E: Eli Lilly and Company
Lilly Corporate Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   253 amino acids
                                   United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (212) 354-8113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (212) 819-8783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/09/154,344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 549;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              L103326-181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2; Length 253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
```

```
Sequence 3, Application US/09210084
PATENT NO. 6197511
GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Lal, Preeti
ITILE OF INVENTION: NOVEL KALLIKREIN
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, In
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                           US-09-210-084-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JS-08-930-188-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 108; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 04-APR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Blalock, Donna K.
REGISTRATION NUMBER: 38,082
REFERENCE/DOCKET NUMBER: X923
TELECOMMUNICATION INFORMATION:
TELEPHONE: 317-277-1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 317-276-3861
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
PRIOR APPLICATION NUMBER:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                        COUNTRY: U
                                                                                                                                        STREET: 3174 POI
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                               253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            169 KLISPODCTKVXKDLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194 TILSPKECEVEYPGVVTNNMICAGL-PRGQDPCQSDSGGPLYCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                          229 PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 134 DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14 ARALAKLLELLMAQLWAAEAALLEQNDTREDPEAYGAPCARGSQEWQVSLENGLSEHCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VLVNERWYLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                               AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARSILLPLQILLSLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                           Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253 amino acids
                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36.7%; Score 549; DB 3; Lengtu 40.9%; Pred. No. 1.2e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08/930,188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 08/416,257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X9239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Length 253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
```

```
RESULT 14
US-09-764-762-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-210-084-3
                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Application US/09764762 Patent No. 6472195
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 36.7%; Score 549; DB 3; I Best Local Similarity 40.9%; Pred. No. 1.2e-48; Matches 108; Conservative 45; Mismatches 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANGE LANCE
TOPOLOGY: LANCE
IMMEDIATE SOURCE:
LIBRARY: GenBan'
"ONE: 532504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 253 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/210,084
                   SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                          Lal, Preeti
TITLE OF INVENTION: NOVEL KALLIKREIN
NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Hillman, Jennifer L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             229 PNDPGVYTOVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169 KLISPODCTKVYKDIJENSMIĆAGIPDSKKNAĆNGDSGGPLVCRGTLOGIVSWGTFPCGO 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134 DEHDLMILKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         253 AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58 VLVNERWVLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   74 VLVDQSWVLTAAHCGNKFLWARVGDDHLLLLQGEQLRRTTRSVVHFKYHQGSGFILFRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14 ARALAKLIPLIMAQIWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQVSLFNGLSFHCAG 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 ARSLLIPLQILLISLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                                                                                    STATE: CA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acid
                                                                                                                                                              ZIP: 94304
APPLICATION NUMBER: US/09/764,762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08/824,874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PF-0252 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
```

<Unknown>

```
á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
PCT-US96-04294-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-764-762-3
                                                                                                                                                                                                                                                                                             Sequence 2, Application PC/TUS9604294
GENERAL INFORMATION:
APPLICANT: Dixon, Eric P.
APPLICANT: Johnstone, Edward M.
APPLICANT: Little, Sheila P.
TITLE OF INVENTION: AMYLOID PRECURSOR PROTEIN PROTEASE AND
TITLE OF INVENTION: RELATED NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                ZIP: 46285
COMPUTER READABLE FORM:
                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSES: Eli Lilly and Company
STREET: Lilly Corporate Center
                   CURRENT APPLICATION DATA:
                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
APPLICATION NUMBER:
                                                                                               MEDIUM TYPE:
                                                                                                                                                           COUNTRY:
                                                                                                                                                                                               CITY: Indianapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36, 749
REFERENCE/DOCKET NUMBER: PF-0252 US
REFERENCE/DOCKET NUMBER: PF-0252 US
TELECONMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/210,084
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 16-Jan-2001
CLASSIFICATION: <Unknown
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLONE: 532504
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229 PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253 AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       134 DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 VLVDQSWYLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58 VLVNERWYLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14 ARALAKLIPLIMAQIMAABAALLPQNDTRLDPBAYGAPCARGSQPWQVSLFNGLSFHCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARSILLPLQILLISLALETAGEEAQGDKIID----GAPCARGSHFWQVALLSGNQLHCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 253 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KLISPODCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LIBRARY: GenBank
                                                                                                                                                                            Indiana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                         United States of America
                                                                                               Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36.7%;
PCT/US96/04294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 549; DB 4;
; Pred. No. 1.2e-48;
45; Mismatches 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4; Length 253;
                                        #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57
```

```
Ś
                                                                                                                                                                                                                                                                                                           뮹
                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                 밁
Search completed: November 25, 2003, 09:09:43
Job time : 25 secs
                                                                                                          S
                                                                                                                                                      밁
                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCT-US96-04294-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 317-276-3861 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
FILING DATE: 04-APR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: X9
TELECOMMUNICATION INFORMATION:
TELEPHONE: 317-277-1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 n match
Local Similarity 40.9%;
es 108; Conservative 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Blalock, Donne REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION:
                                                                                                                                                      169 KLISPQDCTKYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ 228
                                                                                                                                                                                194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                109 HVNDLMLVKLNSQARLSSMVKKVRĹPSRČEPPGTTČTVSGWGTTTSPDVTFPSDLMCVDV 168
                                                                                                                                                                                                                                                                   134 DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                253 AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                               74 VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT 133
                                                                                                                                                                                                                                                                                                                                                                                                                     14 ARALAKLIPLIMAQIMAAEAALLEQNDTRIDPEAYGAPÇARGSQPWQVSLFNGLSFHCAG
                                                                                                                                                                                                                                                                                                           58 VLVNERWVLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT
                                                                                                                                                                                                                                                                                                                                                                                 2 ARSILLPLQILLISLALSTAGEEAQGOKITÓ---GAPCARGSHPWQVALLSGNQLHCGG
                                                                              PNDPGVYTQVČKFTKWINDTMKKH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317-276-3861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08/416,257
                                                                                                                                                                                                                                                                                                                                                                                                                                                               45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      X9239
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 549; DB 5;
Pred. No. 1.2e-48;
5; Mismatches 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 5; Length 253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels 14;
```

Gaps

108

252

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                               Score
                                                                                                                                              1496
1496
1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A Geneseq 19Jun03:*

| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1983.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1984.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1985.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1985.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1987.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1989.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1989.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-emb1/AA199.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-021-368-1
1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         November 25, 2003, 07:29:59; Search time 51 Seconds (without alignments) 858.991 Million cell updates/sec
      100.0
48.7
37.7
37.7
37.7
37.7
                                                                                                                                                                             100.0
                                                                                                                                                                                                                                                                                               Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1107863 seqs, 158726573 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MRAPHLHLSAASGARALAKL......AVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd
                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                  ä
                              AAW07620
AAB21327
ABG96356
AAU82729
ABP42175
AAB21304
AAB224032
AAB24428
                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1107863
                                                                                                                                                                                                                                                                                               Description
                                                             Human
                                                                                                                  Human
                                                                                                                                                 Human
Amino
                                                                                                                                                                                                        Human NES1 polypep
Human NES1. Homo
                                                                                         Human
n ovarian canc
o acid sequenc
ovarian anti
n KLK-LS prote
n PRO1303 prot
n PRO1303 (UNQ
```

Human HSCEE. Homo	132	21	257	5	527	45
Human Stratum Corn	586	22	225	5	533	44
ne SCCE p	8442	23	249	5	536	3
o acid sequen	675	22	288	•	538	42
ion gene wit	3648	21	288	Ģ	538	41
n serine pr	AAW87703	20	260	•	538	40
	7	23	315	36.0	539	9
цр	3798	21	306	٥,	539	38
	285	20	305	•	539	37
Human protease HUP	0643	20	260	٠.	539	36
Human neuropsin.	131	21	275	•	540	υ
Human PRO322 polyp	113	24	260	9	547	ω 4
	ABU59848	24	260	Ġ	547	L)
secreted/	704	24	260	<u>ه</u>	547	32
Human PRO polypept	ABU66767	24	260	•	547	31
RO322	198	23	260	•	547	30
Human PRO322 prote	ABB84852	ટડ	260	٥.	547	29
Human angiogenesis	ABB95458	23	260	•	547	28
Human angiogenesis	8	22	260	<u>.</u>	547	27
Human PRO322 polyp	236	22	260	•	547	26
Novel human diagno	ABG23373	22	260	٠,	547	25
neuro	_	21	260	'n	547	24
Human PRO322 (UNQ2	AAB44300	21	260	'n	547	23
Human neuropsin.	AAB21322	21	260	•	547	22
cid se	032	20	260	5	547	21
serine	AAY32852	20	260	σ.	547	20
	AAY41744	20	260	٠,	547	19
	ABU07471	24	253	٠,	549	18
in different	ABU07440	24	253		549	17
d seguer	274	23	253		549	16
SCCE prot	ABB84421	23	253	•	549	15
Į.	440	23		•	549	14
i pioi	538	17	253		549	13
T	5	16	253	÷	549	2
Protein of the inv	5	22	248	37.7	564	-
Human EST encoded	AAM23994	22		37.7	5 4	5

## ALIGNMENTS

RESULT 1 AAW07620

AAW07620;

AAW07620 standard; Protein; 276

Å

Human NES1 polypeptide. 28-FEB-1997 (first entry)

```
NES1; malignancy; cancer; breast carcinoma; cervix carcinoma; prostate carcinoma; therapy; diagnosis; prognosis; serine protease.
NES1 polypeptide, negatively associated with epithelial cell malignancy - provides diagnostic marker for breast, cervical
                            WPI; 1997-042855/04.
N-PSDB; AAT44111.
                                                          Band V;
                                                                                                06-JUN-1995;
                                                                                                                  21-MAY-1996;
                                                                                                                                      12-DEC-1996.
                                                                                                                                                         WO9639175-A1.
                                                                                                                                                                           Homo sapiens.
                                                                           (NEWE-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.
                                                                                                95US-0467155.
                                                                                                                   96WO-US07343
    and
```

```
RESULT 2
AAB21327
ID AAB2
XX AAB2
XX AAB2
XX AAB2
XX Huma
XX Huma
XX Homc
XX WO2(
XX Homc
XX Homc
XX WO2(
XX WO1-1
PR 01-1
PR 21-(
XX WPI
XX WPI
XX WPI
XX WPI
XX WPI
XX WPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXEXUSO SOS SOS XXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       serine protease negatively associated with epithelial cell malignancy. The NRS1 amino acid sequence was deduced from a cDNA clone (AAT44111) isolated from radiation-transformed human mammary epithelial cell line, 76R-30. The polypeptide can be produced in transformed host cells. It provides a diagnostic marker for breast, cervical and prostate carcinoma and may also be used in the treatment of these diseases.
                                                                                                                                                                                                      11-MAR-1999;
01-APR-1999;
21-JUL-1999;
  New kallikrein-like (KLK-L) proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human
                                                                                                                                                                                                                                                                                                          09-MAR-2000; 2000WO-CA00258
                                                                                                                                                         (MOUN ) MOUNT SINAI HOSPITAL
                                                                                                                                                                                                                                                                                                                                                            14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB21327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 44-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NES1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLK-L1; KLK-L2; KLK-L3; KLK-L4; KLK-L5; KLK-L6; NES1; epithelial cell-specific 1; kallikrein-like protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ
                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | THE CONTROL OF THE PROPERTY 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     V$LFNGL$FHCAGVLVDQ$WVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTR$VVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             carcinoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276 AA;
                                                                                                       Diamandis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                   99US-0124260.
99US-0127386.
99US-0144919.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Procein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          can be useful for treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1496; DB 18;
Pred. No. 3.5e-133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ይ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
for diagnosing and treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           prostrate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mammary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
  XLX-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
ARBSULT 3
ARBG96356
ID ARG9
XX 11-D
ARG9
XX 11-D
XX 11-D
XX 11-D
XX Huma
XX Huma
XX Huma
XX Homon
XX Homo
XX H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 276
14-MAR-2001;
14-MAR-2001;
10-AUG-2001;
19-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is human normal epithelial cell-specific 1 (NBSI), a member of the serine protease family. Kallikreins and kallikrein-like proteins are a subgroup of the serine protease enzyme family. They catalyse the selective cleavage of specific polypeptide precursors to release peptides with potent biological activity. Nucleic acids encoding kallikrein-like proteins KIK-L1, KKK-L2, KKK-L3, KKK-L4, KKK-L5 and KLK-L6 have been isolated. The proteins are useful in the treatment, monitoring and diagnosis of cancers, especially prostrate cancer. They can also be used to identify a substance that can associate with or mediate the biological activity of the proteins. Antibodies can be used to treat conditions mediated by the kallikrein-like proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                Human; ovarian cancer; marker; cancer; familial history; brain disorder; central nervous system disorder; bacterial meningitis; viral meningitis; Alzheimer's disease; Parkinson's disease; cerebral oedema; hydrocephalus; brain herniation; inflammation; encephalitis; testicular disorder; nontuberculous granulomatous orchitis; connective tissue disorder; neart disorder; ischaemic heart disease; atherosclerosis; neoplasm; hierit disorder; ischaemic heart disease; atherosclerosis; neoplasm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human ovarian cancer marker OV32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABG96356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                          14-MAR-2002;
                                                                                                                                                                                                                                                                                      WO200271928-A2
                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                            histological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 4; Fig 27; 184pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein mediated disorders, especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cal Similarity
276; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -ر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VSLENGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MRAPHLHLSAASGARALAKLLPLLMAQLWAAEAALLPQNDTRLDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MRAPHIHISAASGARALAKLIPLIMAQIMAAEAALIPQNDTRIDPEAYGAPCARGSQPWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276 AA;
   2001US-276025P.
2001US-276026P.
2001US-311732P.
2001US-323580P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
ilarity 100.0%;
Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                            type;
                                                                                                                                                          2002WO-US07826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1496; DB 21;
Pred. No. 3.5e-133;
Pred. Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

```
В
                                                                                                                            Ś
                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                    쁑
                                                                                                                                                                                                                                                                                                                                                         당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to a new method for assessing whether a patient is afflicted with ovarian cancer. The method involves comparing the expression level of a marker in a patient sample and the mormal level of expression of the marker in a control non-ovarian cancer sample, where the marker is selected from 363 cancer markers described in the generateriaing cancer, in detecting the presence of cancer as early as consible, and the recurrence of ovarian cancer. The method may also be of particular use with patients having an enhanced risk of developing covarian cancer (e.g. patients having a familial history of ovarian cancer). The cancer markers may be used in the management and treatment of e.g. brain and central nervous system disorders (e.g. bacterial and connective tissue disorders or viral meningitis, Alzheimer's disease or Parkinson's disease), brain of disorders (e.g. bacterial or viral meningitis or encephalitie), connective tissue disorders, or heart disorders (e.g. ischaemic heart disorders (e.g. bacterial or viral meningitis or encephalitie), connective tissue disorders, or heart disorders (e.g. ischaemic heart disease or atherosclerosis). The compositions and methods may also be used in assessing the histological type of neoplasm associated with ovarian cancer, monitoring the progression of ovarian cancer, contential of a compound, or assessing the ovarian cancer nat risk of developing ovarian cancer. The composition for inhibiting ovarian cancer. The composition of the ovarian cancer. The composition of the ovarian cancer. The composition amino acid sequence represents one of the ovarian cancer markers accorded to the ovarian cancer markers accor
                                Ş
                                                                                                                                                                           몽
                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 present amino acid sequence described in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 290; 481pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Assessing whether a patient is afflicted with ovarian cancer, useful in assessing the stage or progression of the disease, comprises comparing the expression level of a cancer marker in a sample from a patient and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-SEP-2001;
26-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MILL-) MILLENNIUM PHARM INC
                                          241
                                                                                      181
                                                                                                                                 181
                                                                                                                                                                             121
                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                  276;
                                                                                                                                                                                                                                                                    43
                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                           ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          non cancer patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JE, Gannavarapu M, Hoersch S, Kamatkar S, Kovatis SG;
RE, Morrisey MP, Olandt PJ, Sen A, Vieby PO, Mills GB;
, Lu K, Schmandt RE, Zhao X, Glatt K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                 YHQGSGPILPRRTDBHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                            VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                              MRAPHLHISAASGARALAKILPILMAQIMAABAAILPQNDTRIDPBAYGAPCARGSQPWQ
GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                       GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                  VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK 120
                                                                                                                                                                                                                                                                                                                                                       YHOGSGPILPRRIDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            276 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-325149P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-324967P.
2001US-325102P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1496; DB 23;
Pred. No. 3.5e-133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 23;
                                            276
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             276
                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                    240
                                                                                                                              240
                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                         60
```

```
RESULT 4
AAU82729
ID AAU82729
ID AAU82729
AN FARM AAU82729
AN FARM AAU82729
AN FARM AAU82729

                                                              S
                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                            (e.g. restenosis and coronary thrombosis), brain or neuronal-associated diseases, metabolic disorders (e.g. diabetes, obesity), inflammatory disorders (e.g. rheumatoid arthritis and psoriasis), central or peripheral nervous system diseases, migraines, pain, sexual dysfunction, mood disorders, attention disorders, cognition disorders, hypotension, psychotic disorders, neurological disorders (e.g. Alzheimer's disease, Parkinson's disease) and dyskinesias. The nucleic acids and polypeptides are also useful for treating viral infections caused by human immunodeficiency virus (HIV), and non-viral infections such as ocular disease (e.g. glaucoma) and macular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to the isolation of novel human proteases, and the nucleic acids encoding them. The sequences of the invention are useful for treating diseases and disorders such as cancers (e.g. breast, colon, lung), immune-related diseases and disorders (e.g. inflammatory diseases and asthma), cardiovascular diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acids encoding novel human proteases, useful for useful treating diseases and disorders such as cancers, immune-related diseases and disorders, cardiovascular disease (e.g. restenosis) inflammatory disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; protease; cancer; immune-related disorder; cardiovascular neuronal-associated disease; metabolic disorder; inflammatory disnervous system disorder; sexual dysfunction; pain; mood disorder; hypertension; psychotic disorder; neurological disorder; dyskines viral infection; human immunodeficiency virus; HIV; non-viral inf
                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-139913/18.
N-PSDB; ABK31771.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU82729;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU82729 standard; Protein; 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Charydczak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plowman G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUN-2000; 2000US-214047P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200200860-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ocular disease; cytostatic; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Amino acid sequence of novel human protease #28
                                                                                                                                                                                                                                                                                                                                                                    degeneration. AAU82702-AAU82760 represent the novel human proteases of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-JUN-2001; 2001WO-US20171
                                                                                                                                                                       Local
                                                                                                                                    al Similarity
276; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fig 2K; 313pp;
                                                                  MRAPHIHLSAASGARALAKLIPILMAQIMAABAALIPQNDTRIDPBAYGAPCARGSQPWQ
MRAPHLHUSAASGARALAKLI PELMAQLWAABAALI PQNDTRI DPBAYGAPCARGSQBWQ
                                                                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Whyte D,
                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                  Ą
                                                                                                                                                                100.0%; Score 1496; DB 23; 100.0%; Pred. No. 3.5e-133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sudarsanam S, Manning G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                    0;
                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorder; dyskinesia;
HIV; non-viral infect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Caenepeel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .g. restenosis)
                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cardiovascular disease;
                                                                                                                                                                                                Length
                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disorder;
```

δ 밁

13 ب

沒

Ş 문 S 밁

```
RESULT 5
ABP42175
  Human; ovarian antigen; ovary; ovarian; breast; cancer; tumour; ovarian cancer; breast cancer; tumour; reproductive system disorder; onfertility; prepancy disorder; anovulation; polycystic ovary syndroup(S); ovarian cyst; dysmenorrhoea; endocrine disorder; infection; inflammatory condition; immune disorder; blood disorder; cardiovascular disorder; respiratory disorder; neurological disorder; gastrointestinal disorder; urinary system disorder; drug screening; gene therapy; chromosome mapping; forensic analysis; antibody preparation; cytostatic; immunomodulatory; neuroprotective; antiinflammatory; gynaecological; reproductive.
The invention relates to 2175 novel human ovarian antigens (ABP41054-ABP43228) and to cDNAs encoding them (ABP4131-ABP56305), and also encompasses polypeptides 90% identical and polymucleotides 95% identical to the sequences of the invention. The invention additionally relates to recombinant vectors and host cells comprising human ovarian antigen polymucleotides antibodies against human ovarian antigens, and the use of ovarian antigen polymucleotides and polypeptides in diagnosing, treating, prognosing or preventing various ovary and/or breast-related disorders. Such conditions include ovarian cancer and breast cancer, and disorders (e.g., infertility, disorders of pregnancy, anovulation, polycystic ovary syndrome, ovarian cysts, and dysmenortheea), endocrine polycystic ovary syndrome, ovarian cysts, and dysmenortheea), endocrine disorders (e.g., infections (e.g., chlamyddia, HIV, toxoplasmosis, and toxic
                                                                                                                                                                                                                                                                                                   Isolated nucleic acid molecules encoding novel ovarian polypeptides, useful in the prevention, treatment and diagnosis of cancer (e.g. ovarian cancer), immune disorders, cardiovascular disorders and neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABP42175;
                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ABQ55252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human ovarian antigen HCOPE27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP42175 standard; Protein; 133
                                                                                                                                                                                                                                                                 Claim 11; SEQ ID No 3307; 2922pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-2000; 2000US-209467P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-JUN-2001; 2001WO-US18569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200200677-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                          2002-147878/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GILSWGVYPCGSAQHPAVYTQICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GILSWGVYPCGSAQHPAVYTQICXYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RVKYNKGLTCSSITILSPKECEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YHQGSGPILPRRTDEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VSLFNGLSFHCAGVLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rosen CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO:3307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
```

```
RESULT 6
AAB21304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CC shock syndrome), inflammatory conditions (e.g., mastitis, oophoritis and CC vaginitis), immune disorders (e.g., congenital and acquired conditions (e.g., congenital and acquired syndrome), conditions, systemic lupus erythematosus), condition-related disorders (e.g., anaemia), cardiovascular disorders, condition-related disorders (e.g., anaemia), cardiovascular disorders, conditional disorders (e.g., anaemia), cardiovascular disorders, conditional analysis, and the present sequence data for this patent did not form part of the printed conspection, but was obtained in electronic format directly from WIPO as ferming in formations.
PRINCE EN AND EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                띩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                New kallikrein-like (KLK-L) proteins for diagnosing and protein mediated disorders, especially cancer. -
                                                                                                                                WPI; 2000-587440/55
N-PSDB; AAA95944.
                                                                                                                                                                                                                                                                                                                                             11-MAR-1999;
01-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAR-2000; 2000WO-CA00258.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prostrate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; KLK-L1; KLK-L2; KLK-L3; KLK-L4; KLK-L5; KLK-L6;
kallikrein-like protein; serine protease; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human KLK-L5 protein #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB21304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB21304 standard; Protein;
                                                                                                                                                                                                                Yousef GM,
                                                                                                                                                                                                                                                                                                                         21-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200053776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                   (MOUN )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   144 ARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                      MOUNT SINAI HOSPITAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FYPGVYINIMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGSAQHPAVYTQIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKECEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                Diamandis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                                                                         99US-0124260.
99US-0127386.
99US-0144919.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      729; DB 23;
No. 4.6e-61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer;
                                                                               treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                  XLX-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

Claim 12;

Page

172;

184pp; English

```
RESULT 7
AAB24032
ID AAB2
XX AAB2
XX AAB2
XX AAB2
XX Huma
XX Huma
XX Huma
XX Homo
XX H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X666666666668XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is one of four alternatively spliced kallikrein-like proteins encoded by the human KLK-L4 gene. Kallikreins and kallikrein-like proteins are a subgroup of the serine protease enzyme family. They catalyse the selective cleavage of specific polypeptide precursors to release peptides with potent biological activity. Nucleic acids encoding kallikrein-like proteins KLK-L1, KLK-L2, KLK-L4, KLK-L5 and KLK-L6 have been isolated. The proteins are useful in the treatment, monitoring and diagnosis of cancers, especially prostrate cancer. They can also be used to identify a substance that can associate with or mediate the biological activity of the proteins. Antibodies can be used to treat conditions mediated by the kallikrein-like proteins.
                            WPI; 2000-594320/56.
                                                                           Botstein D,
                                                                                                                                                                                                               29-OCT-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                               08-MAR-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                      14~SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200053750-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; tumour;
identification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PRO1303 protein sequence SEQ ID NO:33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB24032 standard; Protein; 248
                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ٧,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIMAQIMAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLPNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYICKYVDWIRMIMRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGFCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS----TSHEHDLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                           Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diagnosis; neoplastic disease; proliferation; tumourigenesis; anticancer; detection.
                                                                                                                                                                                                            99US-0162506
99WO-US28313
                                                                                                                                                                                                                                                            99WO-US05028.
99WO-US20111.
                                                                                                                                                                                                                                                                                                                                                99WO-US28551
                                                                                                                                                                                      99WO-US28634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37.7%; Score 564; DB 21; 45.9%; Pred. No. 3.9e-45; 6. Mismatches 92;
                                                                           Gurney
                                                                           ΑL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            À
                                                                           Roy MA,
                                                                           Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                        ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                        ΨI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
```

```
ő
                                                                              밁
                                                                                                           Ś
                                                                                                                                                           문
                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                          皮
                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                     묽
                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CC The present invention describes an antibody that binds to a human CC protein (I) selected from: PRO381; PRO1269; PRO1410; PRO1755; PRO1780; CC PRO3434; PRO1927; PRO3567; PRO1293; PRO1293; PRO1394; PRO4354; CC PRO4397; PRO4407; PRO1555; PRO1296; PRO2038; and PRO2262: (I) has anticancer activity and can be used to diagnose tumours in mammals, by CC detecting complex formation when the antibody is contacted with test cells. Increased expression of genes encoding (I) can also be detected to diagnose tumours. Agents which inhibit the activity of (I), cespecially the antibodies, or an antisense oligonucleotide which CC preferably by inducing cell death. Methods from the present invention CC an be used to identify compounds which inhibit the biological activity of (I). AACS8019 to AACS8102 represent PCR primers and hybridisation probes used in examples from the present invention for human PRO polymucleotide and protein sequences AACS8101 to AACS8122 and AAB24021 to AAB24040 represent human PRO polymucleotide and protein sequences given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                               Matches 118;
                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antibodies specific for PRO polypeptides, used to diagnose and the growth of tumors in mammals, and to identify inhibitors of polypeptide activity or expression -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 61; Fig 24; 226pp; English.
                                                                              172
                                                                                                                                                                                                 141
                                                                                                                  201
                                                                                                                                                           112
                                                                                                                                                                                                                                          88
                                                                                                                                                                                                                                                                               82
                                                                                                                                                                                                                                                                                                                                                          23
                                                                                                                                                                                                                                                                                                                     J
                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                            LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                                                                                                                                                  LLMAQLWAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                  LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                                         LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                                                                                                                                                 LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
TYICKYVDWIRMIMRNN
                                     TOICKYMSWINKVIRSN
                                                                                                   CEVFYPGVVINNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                          CHGVÝPGRITSNMVCÁGGVPGQDÁCQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVÝ
                                                                                                                                                   LRURLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPRPDLLQCLNLSIVSHAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                37.7%; Score 564; DB 21; 45.9%; Pred. No. 3.9e-45;
                                                                                                                                                                                                                                                                                                                                                                                             29;
                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                           92; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 248;
                                                                                                                                                                                                                                                                                                                                                                                           18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inhibit
PRO
                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                          231
                                                                                                                                                                                                                                    111
                                                                                                                                                                                                                                                                                                                 57
                                                                                                                                                                                                                                                                                                                                                    81
```

```
RESULT 8
ARE24428
ID AAE2
AC AAE2
AC AAE2
AC AAE2
XX O7-N
XX Huma
DE Huma
XX Huma
CX Huma
CX Cytc
XX O7-N
CY O
                                                                                                                                                                                                                                                                                                                                                                                                                    angiogenic; proliferative; cardiant; cardiovascular; antiac cytostatic; gene therapy; vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human PRO1303 protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB24428 standard; Protein;
                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO; promotion; inhibition; angiogenesis; cardiovascularisation; sis; trauma; wound; cancer; atherosclerosis; cardiac hypertrophy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NO:203.
```

08-JUN-2000

```
Matches 118;
                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                       useful for preventing, diagnosing and treating diagnosing a cardiovascular, endothelial or angiogenic disorder in mammals by modulating cell proliferation, angiogenesis and cardiovascularisation, and for identifying agonists and antagonists of these processes. The nucleic acids and the proteins they encode may be used in the prevention, treatment and diagnosis of diseases associated with inappropriate PRO expression such as cardiovascular, endothelial or angiogenic disorders in mammals (e.g. atherosclerosis, cancers and cardiac hypertrophy). For example, the nucleic acids (NCs) and vectors containing them and the PRO polypeptide may be used to treat disorders associated with decreased PRO expression. AAA77510 to AAAA7721 and AABA2488 to AABA4435 represent nucleotide and protein sequences used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding PRO polypeptides useful for preventing, diagnosing and treating diagnosing a cardiovascular, endothelial or angiogenic disorders in mammals -
                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes nucleic acids encoding PRO polypeptides useful for preventing, diagnosing and treating diagnosing a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 72; Fig 82; 315pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-412154/35.
N-PSDB; AAA77671.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Godowski PJ,
Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1999;
23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-APR-1999;
14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-JAN-1999;
                                                                                                                                                                                                                                                         Local
                                                                                                                            58 LTAAHCSGSRYWVRLGEHSLSQLDWTEQIKHSGFSVTHPGYLGAS----TSHEHDLRL 111
                                                                                                                                                                                                         23 LLMAQLWAABAALLPQNDTRLDPBAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                         Similarity
                                                                                      LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                   ĊĦĠŦŶŶĠŖŢŶŚŊŴŦĊŔĠĠŦŶĠQĎŔĊŎĠĎŚĠĠŶĹŶĊĠĠŦĹŎĠĹŖŚŴĠŚŦĠŶĊĠQĎĠĨŶĠŶŶ
                                                                                                                                                        LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML 140
                                                                                                                                                                                   CEVEYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY 259
                                                                    LRIRIPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT 171
                                                                                                                                                                                                                                                                                                  248 AA;
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker KP, Ferrara N,
Gurney AL, Klein RD,
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0141037
99US-014758
99US-0146598
99WO-US20111
99WO-US20594
99WO-US20944
99WO-US21090
99WO-US21090
99WO-US21090
99WO-US21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Suce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US28313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0115554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -US12252.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -0131445
                                                                                                                                                                                                                                                        37.7%; Score 564; DB 21
45.9%; Pred. No. 3.9e-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ferrara N,
Klein RD,
                                                                                                                                                                                                                                          29;
                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , Gerber H, Hillan KJ, Go
Kuo SS, Paoni NF, Smith
                                                                                                                                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                         92; Indels 18;
                                                                                                                                                                                                                                                                    Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            >
                                                                                                                                                                                    57
                                                                                                                                                                                                               81
  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
              10-SEP-1998
15-SEP-1998
15-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                          10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human, PRO polypeptide; membrane bound protein; receptor; diagnosis; transmembrane; secretion; immunoadhesion; pharmaceutical; screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO1303 (UNQ669) amino acid sequence SEQ ID NO:194.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY99393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY99393 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-AUG-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                  98US-0100661.
98US-0100662.
98US-0100664.
98US-0100683.
98US-0100684.
                                                                                                                                                                                                                                                                                                                       98US-0099792
98US-0099812
98US-0099815
98US-0099815
98US-0100385
98US-0100385
98US-0100385
98US-0100584
98US-0100627
98US-0100710
98US-0100919
98US-0100919
98US-0100930
98US-0100849
98US-01010044
98US-0101071
98US-0101071
98US-0101477
98US-0101477
98US-0101477
98US-0101477
98US-0101477
98US-0101473
98US-0101473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0098716.
98US-0098749.
98US-0098750.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   980S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S086
S086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0098821
98US-0098843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US20111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9805-0099741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diagnosis,
```

음 성 음 성

유

유

24-SEP-1998 24-SEP-1998 24-SEP-1998 24-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998

```
RBSULT 10
AAM23994
ID AAM23
XX AAM23
XX AAM23
XX 12-OC
XX Human
XX Human
XX Human
XX Human
XX Homan
                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 118; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA37022 to AAA37144 encode the new isolated human transmembrane, receptor or secreted PRO polypeptides given in AAY99340 to AAY99462. The transmembrane and receptor PRO proteins can be used for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactions. The polypeptides and nucleotide sequences encoding then have various industrial applications, including uses as pharmaceutical and diagnostic agents AAA37145 to AAA37330 represent PCR primers and hybridisation probes used in the isolation of the PRO polypeptides from the present invention.
 02-AUG-2001.
                                                                                     Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; tomato; monkey; dog; sea urchin; expressed sequence tag; ES; diagnostics; forenate test; gene mapping; genetic disorder; biodiversity; gene therapy; nutrition.
                              WO200154477-A2
                                                                                                                                                                                                                                                             AAM23994 standard; Protein; 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New mammalian DNA sequences encoding transmembrane, receptor or secreted PRO polypeptides, useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactions
                                                         Homo sapiens.
                                                                                                                                                                   Human EST encoded protein SEQ
                                                                                                                                                                                                                                  AAM23994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; Fig 108; 773pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-NOV-1998;
                                                                                                                                                                                                  12-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                          232
                                                                                                                                                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000-237871/20.
)B; AAA37075.
                                                                                                                                                                                                                                                                                                                                                                      260
                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7
                                                                                                                                                                                                                                                                                                                                     TYICKYVDWIRMIMRNN
                                                                                                                                                                                                                                                                                                                                                                                                                   CEVFYPGVVINNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                                                                                                                                                                                               CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS----TSHEHDLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                                                                                                                                                      TOICKYMSWINKVIRSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRIRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLMAQLWAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37.7%;
ilarity 45.9%;
Conservative 29
                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0108858.
98US-0108904.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gurney
                                                                                                                                                                                                                                                                                                                                         248
                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Score 564; DB 21;
; Pred. No. 3.9e-45;
29; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽Ĺ,
                                                                                                                                                                   ID NO: 1519.
                                                                                                                                                                                                                                                             Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₩I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              171
                                                                                                                                                                                                                                                                                                                                                                                                 231
                                                                                                                                                                                                                                                                                                                                                                                                                                 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81
```

98US-0101741.
98US-0101915.
98US-0101915.
98US-0101916.
98US-0102207.
98US-01022404.
98US-01022571.
98US-0102570.
98US-0102570.
98US-0102570.
98US-0102570.
98US-0102570.
98US-0102570.
98US-0102570.
98US-0103314.
98US-0103314.
98US-0103314.
98US-0103314.
98US-0103314.
98US-0103317.
98US-0103317.
98US-0103317.
98US-0103318.
98US-0103318.
98US-0103318.
98US-0105603.
98US-0105603.
98US-0105603.
98US-0105603.
98US-010603.
98US-010688.
98US-010886.
98US-010886.
98US-010880.
98US-010880.
98US-010880.
98US-010884.
98US-010884.
98US-010884.
98US-010885.

20-OCT-1998,

02-OCT-1998 06-OCT-1998 06-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 08-OCT-1998 08-OCT-1998 08-OCT-1998 08-OCT-1998 08-OCT-1998 14-OCT-1998 14-OCT-1998

21-OCT-1998 22-OCT-1998 22-OCT-1998 26-OCT-1998 27-OCT-1998 27-OCT-1998 27-OCT-1998 28-OCT-1998 28-OCT-1998 28-OCT-1998 28-OCT-1998 28-OCT-1998 29-OCT-1998 29-OCT-1998 29-OCT-1998 29-OCT-1998 30-NOV-1998 30-NOV-1998 30-NOV-1998 31-NOV-1998 17-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998

```
RESULT 11
AAB66142
ID AAB66
XX AAB66
XX AAB66
XX DT 02-AI
XX Prote
XX Segre
XX Segre
XX Wozoc
XX Wozoc
XX Wozoc
                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                  Б
                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JAN-2000;
17-JUL-2000;
03-AUG-2000;
15-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences of novel proteins from a variety of organisms, including human, dog, cat, horse, cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fly, sea urchin and tomato. These were derived from expressed sequence tags (ESTs) from the organism of interest. They can be used in diagnostics, forensics, gene mapping, identification of mutations, to assess biodiversity and for nutritional purposes. The present sequence is a
            WO200078961-A1
                                                          Secreted;
                                                                                   Protein of the
                                                                                                           02-APR-2001
                                                                                                                                                          AAB66142 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 20; Page 1048-1049; 1275pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Isolated polypeptide for treatment antibodies and research use -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                  112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001-476164/51.
DB; AAH98653.
                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                     232
                                                                                                                                                                                                                                                                                                                                      141 LKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              118;
                                                                                                                                                                                                                                                                                                                                                                58
                                                                                                                                                                                                                                                                                                                                                                                       82
                                                                                                                                                                                                                                                                                                                                                                                                                                        23
                                                                                                                                                                                                                                                                                                                                                                                                                ~3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Liu C, Z
Drmanac RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                LUMAQLWAAEAALLEQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
                                                                                                                                                                                                                                           TQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                    CEVFYPGVVTNNMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                                                                                                                                                                                                                               LRIRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNHPRNPFPDLLQCLNLSIVSHAT
                                                                                                                                                                                                                                                                                                                                                             LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS-----TSHEHDLRL
                                                                                                                                                                                                                                                                                                                                                                                    LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                     TYICKYVDWIRMIMRNN
                                                                                                                                                                                                                                                                  CHGVÝ PGRITSNÁVCÁGGVPGÓDACÓGDSGGPLVCGGVLÓGLVSÁGSVGPCGQDGIPGVÝ
                                                                                                                                                                                                                                                                                                                                                                                                            LLLCVLGLSQAA-----TPKI FNGTECGKNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                          transmembrane; gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0617746.
2000US-0631451.
2000US-0663870.
                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0491404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001WO-US02687.
                                                                                   invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou P,
A, Zhang
                                                                                                                                                          protein;
                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37.7%;
45.9%;
                                                                                   #54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qian
J, W
                                                                                                                                                                                                                     248
                                                                                                                                                                                                                                                                                                                                                                                                                                                              29;
                                                                                                                                                          248
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 564; DB 22;
Pred. No. 3.9e-45;
9; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            n XB, Wa
Werhman
                                                                                                                                                          $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wang
wan T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diagnostics, raising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Asundi
                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ٧.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                         259
                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                            57
                                                                                                                                                                                                                                                                  231
                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                    18
```

RESULT 12 AAR67888

AAR67888

standard; Protein; 253

₽

25-MAR-2003 09-AUG-1995

(updated) (first entry)

```
Ś
                                                   뭉
                                                                            Ş
                                                                                                          문
                                                                                                                               Ş
                                                                                                                                                               片
                                                                                                                                                                                       Ś
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-SEP-199;
29-OCT-1999;
30-NOV-1999;
02-DEC-1999;
16-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                               The present invention relates to secreted and transmembrane proteins. These proteins and the DNA encoding them may be used as hybridization probes, in chromosome and gene mapping and in the generation of anti-sense RNA and DNA. They may also be used used to generate either transgenic animals or knockout animals which are in turn useful for development and screening of therappeutically useful reagents. The nucleic acids may also be used in gene therapy.
                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Fig 108; 787pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secreted and transmembrane proteins and nucleic acids designated PRO, useful as hybridization probes, in chromosome and gene mapping and gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker KP, Botstein D, Desnoyers L, Eaton DL, F
Gao W, Goddard A, Godowski DJ, Grimaldi CJ, Gu
Pan J, Paoni NF, Roy MA, Smith V, Stewart TA,
Watanabe CK, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-JUL-1999;
26-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001-071395/08
 232
                         260
                                                   172
                                                                             201
                                                                                                          112
                                                                                                                                  141
                                                                                                                                                                                                                                                                      118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ) GENENTECH INC.
                                                                                                                                                             58
                                                                                                                                                                                         82
                                                                                                                                                                                                                                           23
                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                               LKLARPVVPGPRVRALQLPYRCAOPGDQCQVAGWGTTAARRVKYNKGLTCSSITILSPKE
                                                                                                                                                                                   LTAAHCGNKPLWARVGDDHLLLLQ-GEQLRRTTRSVVHPKYHQGSGPILPRRTDEHDLML
                                                                                                                                                                                                                 LLLCVLGLSQAA-----TPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWV
                                                                                                                                                                                                                                        LIMAQIMAAEAALLPQNDTRLDPEAY-GAPCARGSQPWQVSLFNGLSFHCAGVLVDQSWV
TYICKYVDWIRMIMRNN
                        TQICKYMSWINKVIRSN
                                                CHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQDGIPGVY
                                                                          CEVEYPGVVTNIMICAGLDRGQDPCQSDSGGPLVCDETLQGILSWG-VYPCGSAQHPAVY
                                                                                                     LRERLPVRVTSSVQPEPEPNDCATAGTECHVSGWGITNHPRNPFPDLLQCENLSIVSHAT
                                                                                                                                                          LTAAHCSGSRYWVRLGEHSLSQLDWTEQIRHSGFSVTHPGYLGAS....TSHEHDLRL
                                                                                                                                                                                                                                                                                                                          248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US28313.
99WO-US28551.
99WO-US30095.
2000WO-US00219.
2000WO-US00376.
                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US04342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0144758.
99US-0145698.
99WO-US20111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9908-0162506
                                                                                                                                                                                                                                                                                  37.7%;
45.9%;
                         276
                                                                                                                                                                                                                                                                     29;
                                                                                                                                                                                                                                                                   Score 564; DB 22
Pred. No. 3.9e-45
9; Mismatches 9:
                                                                                                                                                                                                                                                                                             22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ferrara N,
Gurney AL,
                                                                                                                                                                                                                                                                                             Length 248;
                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumas D;
                                                                                                                                                                                                                                                                   18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fong S;
Hillan KJ;
                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                      140
                                                                                                       171
                                                  231
                                                                            259
                                                                                                                                                                                                                 57
                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                   Ç
```

```
RESULT 13
AAW05383
ID AAW05
XX
AC AAW05
XX
DT 31-DE
XX
                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                Ş
                                                                                                                                                                                       밁
                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                       밁
                                                                                                      뜅
                                                                                                                                             뭣
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                          The enzyme encoded by this sequence is used in pharmaceutical, cosmetic and skin care products, especially to treat and prevent acne, xeroderma, or other hyperkeratotic conditions (e.g. callosities or keratosis pilaris), ichthyoses, psoriasis, eczema, etc. It is produced recombinantly following mammal, insect, plant, or microorganism transformation with plasmid ps507.

(Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleotide sequences encoding stratum corneum chymotryptic enzyme - and related vectors, transformed cells and polypeptides, useful for treating skin disorders, e.g. acne or psoriasis, and for identification of specific inhibitors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stratum corneum chymotryptic enzyme; skin disorder; acne; psoriasis; callosities; keratosis pilaris; ichthyoses; eczema.
            31-DEC-1996
                               AAW05383;
                                                   AAW05383
                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 97; 137pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAQ81203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Egelrud T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9500651-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SYMB-)
                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1995-052088/07.
                                                                                                      229
                                                                                                                                                                                                   134 DEHDLMLIKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                         253
                                                                                                                                             169
                                                                                                                                                                  194
                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              stratum
                                                                                                                                                                                                                              58
                                                                                                                                                                                                                                                    74
                                                                                                                                                                                                                                                                                           14
                                                                                                                                                                                                                                                                       N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYMBICOM AB.
                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                          TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                                                                          ARALAKLIPLIMAQIWAAEAALIPQNDTRIDPEAYGAPCARGSQPWQVSIFNGISFHCAG
                                                   standard;
                                                                                                      PNDPGVYTQVCKFTKWINDTMKKH
                                                                                                                          AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                      HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                              VLVNERWYLTAAHCKMNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT
                                                                                                                                                                                                                                                    VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT
                                                                                                                                                                                                                                                                       ARSILLPIQILLISLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                                             KLISPQDCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ
                                                                                                                                                                                                                                                                                                                                                       253 AA;
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hansson L;
            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             corneum chymotrophic recombinant enzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93DK-0000725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94WO-IB00166
                                                   Protein;
                                                                                                                                                                                                                                                                                                               36.7%; Score 549; DB 1
40.9%; Pred. No. 1e-43;
tive 45; Mismatches
                                                   253
                                                                                                      252
                                                                                                                                                                                                                                                                                                                                   DB 16;
                                                                                                                                                                                                                                                                                                                97;
                                                                                                                                                                                                                                                                                                                                   Length 253;
                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SCCE)
                                                                                                                                                                                                                                                                                                                14;
                                                                                                                                             228
                                                                                                                                                                  252
                                                                                                                                                                                       168
                                                                                                                                                                                                                               108
                                                                                                                                                                                                                                                    133
                                                                                                                                                                                                                                                                        57
                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                            밁
                                                                                                                                                               ঠ
                                                                                                                                                                                      묽
                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                        8
                                                                                                      닭
                                                                                                                                                                                                                                                                       용
```

```
RESULT 14
ABB84406
ID ABB84
XX
AC ABB84
AC ABB84
XX
DT 08-NC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human amyloid precursor protein protease (AAM05383) is involved in the processing or clearance of amyloid precursor protein to form beta-amyloid peptide. Its amino acid sequence was deduced from a cDNA clone (AAN39783) obtd. from a human lung library. Recombinant protease can be produced in transformed or transfected prokaryotic (partic. E. coli) or eukaryotic (partic. AV-120 host cells. It is used to develop products for the design and testing of cpds. useful for treating or preventing conditions associated with beta-amyloid peptide, esp. Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09631122-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human amyloid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 44-45; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated human amyloid precursor protein protease - used develop prods. for the treatment or diagnosis of associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-OCT-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Amyloid precursor
                                                                                                     ABB84406 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   conditions, esp. Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1996-464694/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dixon EP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BLIL ) LILLY & CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                 169
                                                                                                                                                                                                                                                                                                                                           194
                                                                                                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                                                                                                           134 DEHDIMILKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58 VLVNERWVLTAAHCKWNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14 ARALAKILPILMAQIMAAEAALIPONDTRIDPEAYGAPCARGSQPWQVSJFNGLSFHCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT39783
                                                                                                                                                                                                                                                                                                                                         TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                                                                                                                                                                 HVNDLMLVKLNSOARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT
                                                                                                                                                                                                             PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                       AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                 KLISPQDCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLVCRGTLQGLVSWGTFPCGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARSILLPLQILLISLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Johnstone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          253 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      precursor protein protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-0416257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96WO-US04294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein protease; Alzheimer's disease; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITE (
                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36.7%;
40.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ä,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Little
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45;
                                                                                                       253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 549; DB 1
Pred. No. 1e-43;
5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease
                                                                                                       ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---STOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                 228
                                                                                                                                                                                                                                                                                                                                           252
                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57
```

08-NOV-2002

(first

entry)

ABB84406

Human

SCCE protein

Ş გ δ 밁

```
cx whis invention describes a novel non-human transgenic mammal or mammalian cembryo having integrated within its genome, a heterologous nucleotide coding for a stratum corneum chymotryptic enzyme (SCCE) or its variant in skin. The product of the invention is useful as a model cor its variant in skin. The product of the invention is useful as a model cor its variant in skin. The product of the invention is useful as a model cosmetic or a pharmaceutical formulation, for development or testing of a compound or composition effective for the prevention or treatment of a compound or composition effective for the prevention or treatment of an compound or composition effective for the prevention or treatment of a compound or composition effective for the prevention or treatment of hyperkeratosis, acanthosis, epidermal inflammation, dermal inflammation, pruritus, atopic dermatitis, epidermal and inherited skin diseases with epidermal hyperkeratosis. The mammal of the invention is also useful or screening or identifying a compound or composition of the mechanisms and the testing of potential compounds and compositions for relieve of various skin diseases.

CC with epidermal hyperkeratosis. The mammal of the invention is also useful as a model for further studies of itch mechanisms and the testing of potential compounds and compositions for relieve of various skin diseases with human kallikrein 7 (KLK7) and is used in the development of the transgenic mammals described in the invention.
                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Transgenic mammal or its embryo useful as model for human disease, heterologous nucleotide sequence coding for stratum corneum chymotryptic enzyme operably linked to promoter that drives its expression in skin -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCCE; human; stratum corneum chymotryptic enzyme; kallikrein 7; serine protease; transgenic mammal; skin; skin disease; skin cancer; hyperkeratosis; acanthosis; epidermal inflammation; dermal inflammation; pruritus; atopic dermatitis; eczema; acne; itch; KLK7; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-FEB-2001; 2001CA-2332655.
09-FEB-2001; 2001DK-0000218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 10; Page 58-59; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-643380/69.
N-PSDB; ABQ76226.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-FEB-2002; 2002WO-IB01300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200262135-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EGEL/) EGELRUD T. (HANS/) HANSSON L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
134
                                                                                                                                                                                                                                                                                                                                              108;
                                                                                                                                                                                                                                                                        14
                                                                                                                                74
                                                                                                                                                                                                      N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                           Similarity
DEHDLMLLKLARPVVPGPRVRALQLPYRCAQPGDQCQVAGWGTTAARRVKYNKGLTCSSI 193
                                                                                                   VLVDQSWVLTAAHCGNKPLWARVGDDHLLLLQGEQLRRTTR$VVHPKYHQGSGPILERRT 133
                                                                                                                                                                                                                                                                        ARALAKLIPLIMAQIMAAEAALLPQNDTRIDPEAYGAPCARGSQPWQVSIFNGISFHCAG 73
                                                                  VLVNERWYLTAAHCKWNEYTVHLGSDTLGDRRAQRI-KASKSFRHPGY-----STQT 108
                                                                                                                                                                                                      ARSILLPIQIILLSLALETAGEEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hansson
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ã
                                                                                                                                                                                                                                                                                                                                                                           36.7%;
                                                                                                                                                                                                                                                                                                                                              ; Score 549; DB 2
; Pred. No. 1e-43;
45; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                            DB 23;
                                                                                                                                                                                                                                                                                                                                                 97;
                                                                                                                                                                                                                                                                                                                                                                                                                Length 253;
                                                                                                                                                                                                                                                                                                                                                 Indels 14;
                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                          57
```

Ş 멍 Ś 멼 Ś

```
ARBSULT 15
ARBH4421
ID ARBH4421
AC ARBH4
XX ARBH4
XX ARBH4
XX ARBH4
XX ARBH4
XX ORCE;
KW SCCE;
KW MO200
YX HOMO
YX OR-FE
PR 09-FE
PR 09-FE
PR 09-FE
PR 09-FE
PR 09-FE
PR WPI;
XX INGELIANT
XX FARM
XX FARM
XX FARM
XX This
CC Coperin
CC Operin
CC Compo
CC Skinn
CC Compo
CC Compo
CC Skinn
CC Compo
CC Compo
CC Skinn
CC Compo
CC Compo
CC Skinn
CC Compo
CC Com
This invention describes a novel non-human transgenic mammal or mammalian ce embryo having integrated within its genome, a heterologous nucleotide sequence comprising at least a significant part of a nucleotide sequence coding for a stratum corneum chymotryptic enzyme (SCCE) or its variant, corneum chymotryptic enzyme (SCCE) or its variant, corneum chymotryptic enzyme (SCCE) or its variant, or its variant in skin. The product of the invention is useful as a model corneliorate a pathogenic condition, for development or testing of a commetic or a pharmaceutical formulation, and for the development of a composition extended. It can also be used as a model for a skin disease or skin cancer. The invention is also useful for screening or identifying a compound or composition effective for the prevention or treatment of an compound or composition effective for the prevention or treatment of inflammatory skin diseases selected from diseases consisting of epidermal formulatius, atopic dermatitis, eczema, acne and inherited skin diseases with epidermal hyperkeratosis. The mammal of the invention is also useful as a model for further studies of itch mechanisms and the testing of compounds and compositions for relieve of various skin diseases constituted in the invention is also useful as a model for further studies of itch mechanisms and the testing of compounds and compositions for relieve of various skin diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCCE; human; stratum corneum chymotryptic enzyme; kallikrein 7; serine protease; transgenic mammal; skin; skin disease; skin cancer; hyperkeratosis; acanthosis; epidermal inflammation; dermal inflammation; pruritus; atopic dermatitis; eczema; acne; itch; KLK7; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transgenic mammal or its embryo useful as model for human disease, heterologous nucleotide sequence coding for stratum corneum chymotryptic enzyme operably linked to promoter that drives its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human SCCE protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABB84421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB84421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-FEB-2001; 2001CA-2332655.
09-FEB-2001; 2001DK-0000218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-FEB-2002; 2002WO-IB01300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 6; Page 37; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-643380/69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Egelrud T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200262135-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (EGEL/) EGELRUD T. (HANS/) HANSSON L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194 TILSPKECEVFYPGVVTNNMICAGL-DRGQDPCQSDSGGPLVCDETLQGILSWGVYPCGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCEPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; Peptide; 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PNDPGVYTQVCKFTKWINDTMKKH 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AQHPAVYTQICKYMSWINKVIRSN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hansson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-terminal fragment SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         168
```

```
Search completed: November 25, 2003, 09:07:13 Job time : 54 secs
                                                                                                         Ś
                                                                                                                                               밁
                                                                                                                                                                        Ş
                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    និនិនិនិ
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 36.7%; Score 549; DB 23; Length 253; Best Local Similarity 40.9%; Pred. No. 1e-43; Matches 108; Conservative 45; Mismatches 97; Indels 14; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fragment of the human stratum corneum chymotryptic enzyme, SCCE synonymous with human kallikrein 7 (KLK7), used in the development of the transgenic mammals described in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                  109 HVNDLMLVKLNSQARLSSMVKKVRLPSRCBPPGTTCTVSGWGTTTSPDVTFPSDLMCVDV 168
                                                                                                                                                                                                                                 134 DEHDIMILKIARPVVPGPRVRALQIPYRCAQPGDQCQVAGWGTTAARRVKYNKGITCSSI 193
                                                                                                                                                                                                                                                                                  74 VLVDQSWVLTAAHCGNKPLMARVGDDHLLLLQGEQLRRTTRSVVHPKYHQGSGPILPRRT 133
|||:|||||||
58 VLVNERWVLTAAHCKNNEYTVHLGSDTLGDRRAQRI-KASKSERHPGY-----STQT 108
                                                                                                                                                                                                                                                                                                                                                                                  14 ARALAKILPILMAQIMAABAALLPQNDTRIDPBAYGAPCARGSQPMQVSLPNGLSFHCAG 73
                                                                                                                                                                                                                                                                                                                                                           2 ARSULIPLQIILLISLALETAGSEAQGDKIID----GAPCARGSHPWQVALLSGNQLHCGG 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  253 AA;
```